

AFV 138

SEPT/OCT 2024 • £7.95 UK \$16.99
www.afvmodeller.com

modeller



JEEPSTERS

MODELLING SPECIAL AIR SERVICE DESERT RAIDERS

Airbrushes.com

Your UK HUB for everything to do with AIRBRUSHING!

iwata

Professional Airbrushes, Compressors, Spares and Accessories

SCAN ME



We also run Airbrush Courses for Modellers!

Top brands in stock:

GodHand

LIFECOLOR
ACRYLIC HOBBY COLORS

SPARMAX

**MODEL
CRAFT**

BADGER

www.Airbrushes.com 01903 767800 sales@airbrushes.com

The Airbrush Company Ltd. 79 Marlborough Road, Lancing Business Park, BN15 8UF

CONTENTS

2	Desert Raiders The Editor builds a 1:16 SAS Jeep
10	M3 Vince Pedulla describes his 1:16 M3 Halftrack conversion.
18	Big Mack Newland Models Mack heavy mover modelled by Ian Barraclough
26	Waffle Warrior Andrei Grechkin describes his battered Stug III
38	A Bridge Too Far? Zack Sex models a Chinese Type 62 tank
46	Coelian Lukasz Orczyc-Musialek unfolds his Paper Panzer
58	Alan Ranger Archives - German Staff Cars Rare archive photos from the collection of Alan Ranger.

AFV Modeller is published Bimonthly by
AFV Modeller Ltd
Old Stables
East Moor
Stannington
Northumberland
NE61 6ES
Tel: 01670 823648

Editor and Designer: David Parker
email: david@afvmodeller.com
Deputy Editor and Designer: Mark Neville
email: mark@afvmodeller.com
Sales Director: Keith Smith
email: keith@afvmodeller.com

ISSN 2059-4305



'Like' us to follow what's new and
follow our build projects.

AFV Modeller welcomes contributions from interested parties, but cannot accept any responsibility for unsolicited material. The contents of this publication including all articles, drawings and photographs originated by AFV Modeller Ltd become the publishers copyright under copyright law. Reproduction in any form requires the written consent of the publisher. Whilst every care is taken to avoid mistakes AFV Modeller Ltd. cannot be liable in any way for errors or omissions.

DESERT RAIDERS

**TAKOM'S 1:16 JEEP CONVERTED INTO A SPECIAL AIR
SERVICE RAIDER USING THE AFV MODELLER PARTS
MODELLED BY DAVID PARKER**



Two years

My modelling hiatus had lasted 2 years, since finishing my 1:16 Panzer IV my motivation to sit down and build something had completely deserted me and I felt that I was getting all my creative satisfaction through my 3D design work. When your drive and motivation deserts you there is usually little point in forcing it and so the months rolled past. What brought me back to the bench was the decision to attend the KMK model show in Geel, Belgium. With a couple of months in hand before the show I remembered my stalled LRDG jeep project and decided to try to finish it to take to the show.

At this stage the Jeep had already been assembled as a mule to fit all my 3D conversion parts to and I had got as far as applying the base colours before my motivation evaporated and it was all placed in a box.



The Takom kit builds very nicely and for my purposes required little additional detail apart from replacing the wheels and adding the extensive stowage and weapons set up. My modifications to the base kit were removal of the fittings for the roof frames from the top of the hull and drilling out the bolt holes and doing the same to the grab handles which wrap around the rear corners of the hull tub. The tow hook was removed and the mounting bolt holes drilled out and I added some of my own 3D tie down loops to the rear plate and to the tool stowage area on the Driver's side. At the front I cut away the radiator grille leaving the two centre

rails. I also deleted the lamp mounts from the front fenders. Inside the Jeep I left the back seat off the model and I filled the gaps between the front seat padding and the pop-fastened strips that secure them to the seat frames. Although I did take the time to assemble the engine bay I certainly didn't add any detail and I could have probably saved time by assembling far less of it than I did.

I was then able to turn my attention to setting up the LRDG/SAS modification all of which come from the AFV Modeller range which



My model started as a demonstration mule to test and display the assorted AFV Modeller LRDG/SAS conversion parts



I had designed. I added the characteristic dented condenser can to the front grille and used some flexible resin to make the hose that connects it to the radiator. The wheels were replaced with the AFV ones which have a weighted appearance and the correct sidewall markings that the kit wheels lack. I also chose two spare wheels, one military and one with civilian pattern tread. Jerrycan stowage was selected to match the vehicle I was modelling and I went with the early .50 Cal bonnet mount mainly because I love the cascading ammunition belt. I copied the set up from this well documented vehicle with a twin Vickers K mount in the rear. Throughout the painting process I left as many of these pieces as separate parts as I could even though the temptation to glue them in place was constant. Working on such a crowded and laden vehicle meant that access was going to be a problem otherwise.

Painting

Regrettably circumstances meant that I was unable to record the progress of my painting process but there is nothing ground -breaking about the processes that I used. I began by applying a coat of Mission Models Grey Primer followed by a base coat of US Olive Drab also from Mission Models. In retrospect I probably could have skipped this stage but I wanted to allow some olive drab show through and to carry out some hairspray chipping to the footwell areas and 'door' surrounds. The jeep was then oversprayed with Mission Models Sandgrau and the areas of camouflage which was mixed to my taste using Mission Models colours again. The Hairspray chipping worked reasonably well but it was always going to need more work to create the look I wanted. I worked over the entire vehicle applying chips and scuffs to

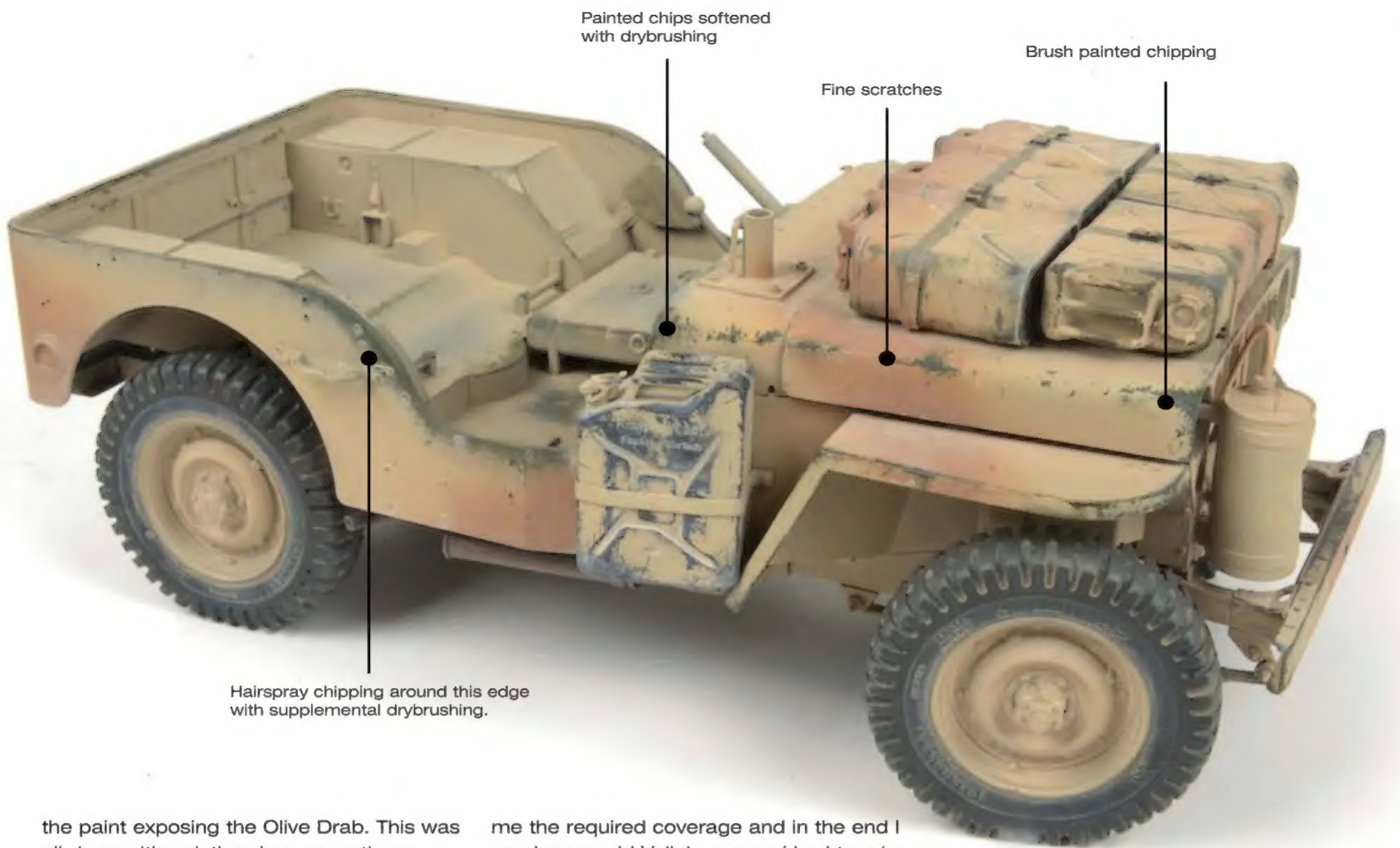


Simple modifications to the basic Jeep included removing the roof frames and drilling out the holes. Note the new tie down loops under the remaining side handle



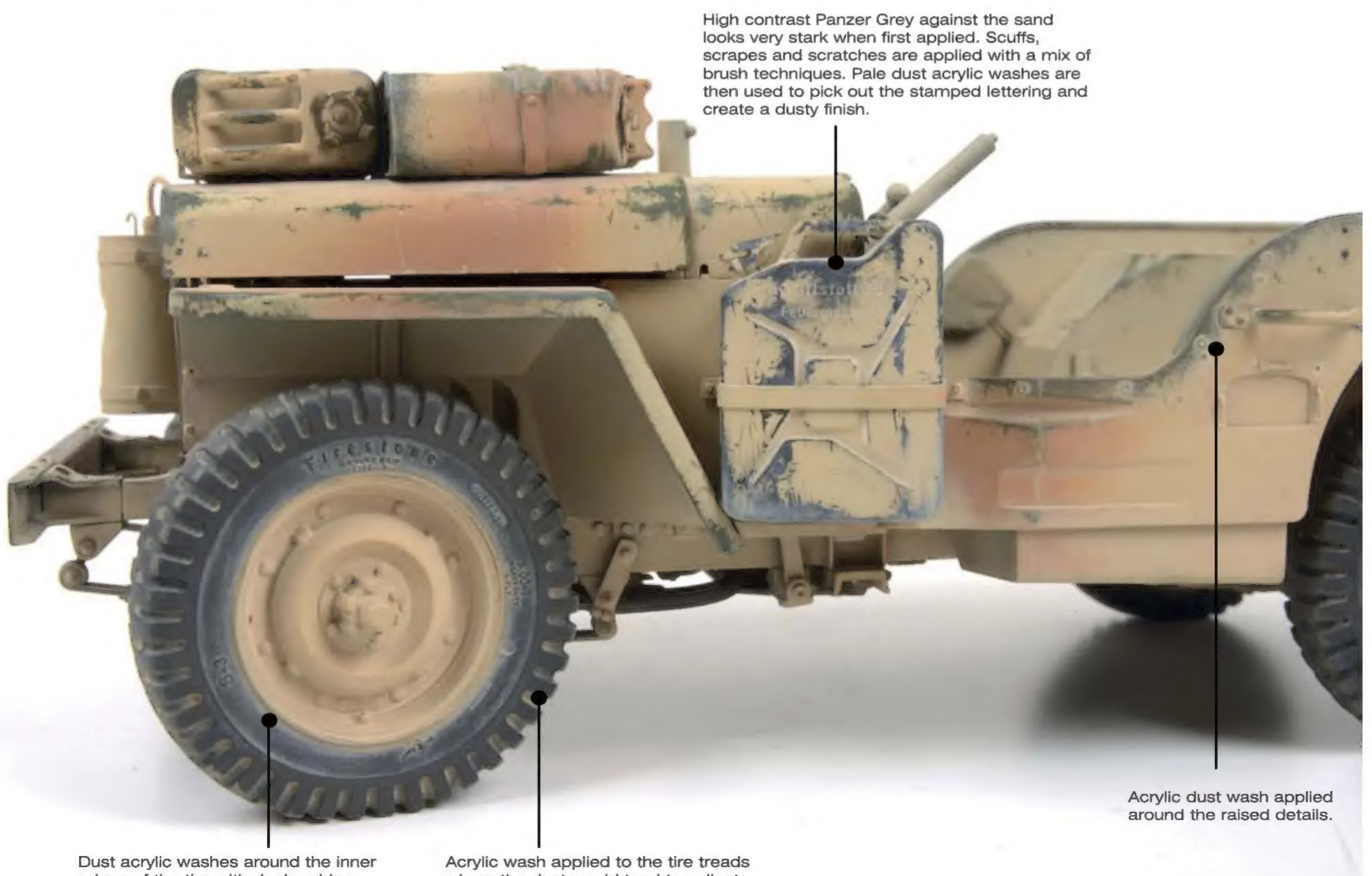
The wrap around handles on the corners were deleted and the holes drilled out and more tie down loops were added.





the paint exposing the Olive Drab. This was all done with paintbrushes, sometimes painting random chips or scratches and sometimes using an old flat brush to drybrush the edges or to soften the paint chips. I had to shop around my paints in order to find a green with the opacity I needed for this as many were not giving

me the required coverage and in the end I used some old Vallejo greens I had to mix a suitable colour. The same technique used on the extensive collection of Jerrycans which were fortunately still separate parts which made the process much easier.



Dust acrylic washes around the inner edges of the tire with dry brushing over this to pick out the sidewall lettering.

Acrylic wash applied to the tire treads where the dust would tend to collect.

Acrylic dust wash applied around the raised details.



Above I photographed the stowage parts once dry fitted so that I had a guide to glue them back in



Above Painting the crew in progress

Stowage

Creating the stowage for the back of the Jeep was a project in itself which required careful planning and test fitting of the items of stowage to get a convincing arrangement. Apart from the Jerrycans I had an assortment of the AFV Modeller POW cans (petrol, oil, or water) as well as the water cans which have the rounded corners and have a W stamped in them. Along with these were the ammunition boxes, two regular .50 Cal boxes and the mix of cut down biscuit tins used to hold the Vickers Drum magazines. All these elements were painted individually before they were placed in position in the vehicle. I managed to hand letter the labels on the biscuit tins in a few different styles based on some preserved examples which also added a flash of colour in the case of the yellow label. As well as some wear and tear applied to the cans everything had an

acrylic wash of light sand colour focussed on the upper surfaces where dust would settle.

Weapons

This Jeep features one of the improvised .50 Cal mounts using salvaged aircraft guns rather than the more standard version of the M2. Although it features a sturdy cradle and feed chute at this stage the ammunition is fed from a box mounted on the bonnet with the belt snaking up to the breech. Details of the box are scant but it obviously is not the regular .50 Cal ammo box. My guess is that it was another scavenged aircraft part, so this was finished in a heavily chipped and worn zinc chromate green.

Assembling the twin Vickers K is a little bit tricky because of the three bracing bars that run between the two guns but as I

designed the parts I can't really complain. The trick is to align both guns in the cradle first and then fix the cross bars in position, taking care not to damage the delicate ring sights. It all went very smoothly for me and it was on to painting the weapons. These were painted using Vallejo Metal Color Gunmetal Grey which covers really well and is a great basis for further work and I applied some Vallejo Air black washes followed by some very delicate light dust washes in areas less likely to be handled. Finally I applied some areas of polished metal around the triggers, grips and breech where the guns would be handled. This was done with a small brush I had cut down and using Uschi van der Rosten's steel polishing powder. The Vickers K magazines had a painted sidewall, not sure why but they are always grubby looking which was a pleasure to replicate. The 50 Cal ammunition belt was

painted using Mr Metal Colour Brass and copper and the belt links were painted with Vallejo Metal Color Gunmetal Grey. The same colours were used to paint the AFV Modeller spent 50 Cal ammunition and the smaller 30 Cal which acted as Vickers K bullet casings. These were glued into the footwells before the figures were added, making sure they were grouped at the back to match the uphill pose of the Jeep.

Figures

One of these Jeeps really has to have figures and I sculpted these three figures for it as part of our AFV Modeller range. I really wanted to get away from the clichéd guys in shorts with bushy beards and Arab head dress which are the only figures you ever see. A more nuanced search for images throws up a huge alternative selection of uniforms without the headscarfs which appear to have been a feature of the well-known publicity photos but not widely used otherwise. I also want my figures to reflect the fact that temperatures could be cold as well as hot.

The standing figure is based on a photo of a French SAS member wearing both greatcoat and balaclava. When sculpting the two seated figures I realised there isn't



Above Close ups of the completed weapons, note the sun compass mounted on the lip of the dashboard I used Albion Alloys 0.2mm Nickle Silver rod for the central post.





DESERT RAIDERS

a huge choice of poses but I wanted something fairly relaxed but also linking the two, looking into the distance with the gunner leaning across worked nicely. The Driver offered me the chance of using a 3D scan of my own head with beard. Its a bit of fun and also saved be the job of sculpting another head. The figures were painted using Lifecolor acrylics and it showed up how rusty I was after two years without any practice. Fortunately the muscle memory returned and I was able to complete the crew. I decided to push the flesh tones from what I would usually do to try to depict some sunburn with a more red tone to my palette. I left the outline of the goggles on the Driver's face especially. It is possibly pushed a bit far but the viewer identifies it as sunburn immediately which was the aim. I will skirt over existential issue of painting ones own face in miniature, but it was a bit weird. The khaki tones of the uniforms are a tricky colour to capture but in the end I settled on a Lifecolor paint called 'Polish Uniform'





which seemed to match well and provided a consistent base colour to start from. Adding buff, flesh or greens gave the variations and shading tones that I wanted. I struggled a little with the need to give some sheen to the leather jerkin of the gunner. I usually use a diluted satin varnish for this and I tested this on a hidden part of the jerkin only for it to dry far more glossy when applied overall. I ended up repainting large parts of it to tone this down to a more accurate finish.

Finally I made a simple sloped base to fix the jeep and figures to, the raised nose of the jeep added some dynamism to the finished model.

Acknowledgement I would be very remiss not to thank Charlie Down for all his assistance and information on the SAS / LRDG Jeeps which were invaluable to me to me when creating these conversion parts.



The concept of the halftrack was developed to combine the mobility of a truck with the cross-country ability of a tracked vehicle. At the time, military wheeled trucks were unable to keep up with tanks, being much slower and lacking good cross-country abilities. Although many nations developed halftracks between WW1 and WW2, the Germans were the first to perfect and use this type of vehicle such as the SdKfz 250 & 251 halftracks.

These were used very successfully by the Germans for the duration of the war in many variants and were ideal for their Blitzkrieg warfare. German halftracks were used to rapidly transport troops and equipment, conduct reconnaissance, or serve as specialized vehicles like command, radio, anti-aircraft and anti-tank platforms, and even as combat ambulances.

The US Army began developing halftracks for military use in the 1930s, eventually developing first the M-2, and the M-3 vehicles. The M-2 was somewhat smaller than the M-3 and was designed for artillery units and in support roles, while the M-3 was designed for troop transport, at least at first. The vehicles shared many components, including the running gear, engines and front cab. The Americans took a different direction in vehicle design than the Germans. The Germans used complex running gear with linked tracks and an unpowered front axle, although they did have angled armour. The US based the M2/M3 on truck parts, with a powered front axle and tracks which were one piece rubber moulded over steel cables.

The M2/M3s had flat armour sides and could mount machine guns to support the infantry.





Both the US and German halftracks were only protected against small arms fire and shrapnel and had open top superstructures. However, they did provide troops with rapid transportation and had reasonable armour protection. Importantly, they could keep pace with tanks, especially when compared to trucks or horse drawn wagons. There were many variations of the M3 family, including anti-aircraft, artillery, ambulance, command and control and they were used well into the 1960s by many nations, most famously by Israel.

1:16

VINCE PEDULLA

GOES FULL-ON WITH HIS HALF-TRACK
CONVERSION IN SIXTEENTH SCALE



My 1:16th scale M-3 Halftrack model is, by far, the longest running modelling project that I have ever built. I've been working on a big scale M-3 Halftrack project for over 20 years, with many long "shelf queen" intervals. The origins of this project began in the early 2000s, when I was gifted a 1:16th scale resin model of the US Army M-3 halftrack from Jim Shirley Productions (now defunct). This kit was a product of it's time, and was rather crude, being mainly an upscaled copy of the 1970's vintage Tamiya M3A2 model. It was very heavy, under-detailed, had some crude white metal parts, and very overscale thick superstructure walls. I made an effort to put it together but gave up on it as a bad job. The model lingered as a shelf queen for a few years until the release of the Trumpeter M-16 halftrack kit. This kit was released in 2008 and was a decent model with good detailing. I built the M-16 and enjoyed it, as you can read in my article here: <https://www.modelerv.com/M16GPGC.htm>



An idea began forming in my mind to convert the M-16 kit into an M3A1, using the chassis, running gear and forward cab of the M-16, a few parts from the JS kit and many scratch built parts. The first step in this project was to figure out how to create the rear superstructure where the infantry was carried. It differed considerably between the M-16 and M-3. I considered using sheet styrene but worried it would be too weak as a structure. To get to the scale thickness of the armour, the plastic had to be .010, which is very thin. When I gained access to a flatbed laser cutter, I made plans to cut the pieces I needed using thin acrylic sheet. Even at .010, this is much stronger than styrene plastic. I used Corel Draw to make the plans for the sides, inner structures and other small details. I referenced the Dragon kit and plans from the Hunnicut and Squadron books to create a properly scaled design. The laser cut pieces were perfectly sized but are flat with some engraved details, and needed many details to be added, such as inner bracing and the many screw heads seen on the outside of

the hull. I began construction with the chassis and running gear, along with the vehicle cab, leaving off the rear compartment and 50 caliber Maxim machine gun turret. I was able to use the M-16 kit's rear floor, covering it with treadplate, seat support boxes and other details.

I pieced together the rear fighting compartment using the laser cut acrylic to form the basic structure and fitted it to the kit's floor part, testing it against the frame and forward crew area. Using the M-16's rear floor provided a perfect fit to the frame. I cut off and re-used the rear bumpers, hitch, and taillights from the Trumpeter kit, and meticulously shaved screw heads off of the M-16's side walls with a curved very new X-Acto blade to add to the M-3's superstructure. The laser cut pieces included the basic inner structure such as the rear door, floor base, and seat bases. I even cut the tiny supports for the rail that runs under the seats along the inner hull.

Moving to the interior I made seat cushions from Milliput, added the rails, and the tread plate floor from Plastruct sheet. M-3s in combat are usually seen with large, stowed rolls of gear, anti-tank mines and ammo cans stowed in various places. I sculpted the rolled stowage and bags along the fenders and rear wall of the M-3 with Milliput, adding lead foil straps, and thin rope, and I thought these parts looked very good. Tom Gardner designed and created a resin cast 50 caliber MG pulpit and mount with amazing details. This was a vital part of this project. I also attempted making the side mine racks, instrument panel (the kit part is woefully under detailed), footman's loops and rifle racks from sheet & strip styrene and copper wire. However, I was very dissatisfied by these initial attempts. They were warped and misshapen due to the material and my own lack of skills at the time.

A few more roadblocks, such as finding it difficult to make the rear hatch closing mechanism, along with a general feeling of malaise & frustration left me disheartened and led me to shelve this model for several years.

In 2022 I started a foray into 3D printing, purchasing an Elegoo Mars 3 printer and wash/cure station, and this has been a real boon to my model making. I'm now able to design and create detailed parts on my computer and print them out at home. It occurred to me that I could use this technology to resurrect the M-3 project and brought it out after several years for inspection. I was surprised by how far I had actually gotten and could see that the project could be completed.

I ended up using the 3D printer to make a variety of parts including:

- Rear hatch locking mechanism, latches & handle.
- Side mine stowage racks.
- Rifle racks in the fighting compartment.
- A highly detailed instrument panel with proper wiper motors
- Detail parts for the JSP 30 caliber MG base mounts.
- Front louver handle in the cab.
- Steering wheel support and post.
- M-1 Anti-Tank Mines.
- .50 Cal MG mount detail parts for the already excellent pulpit.
- Footman's loops and tool buckles, hinges for the folded driver door opening, wingnut parts for the windshield, and inserts for the carton printed C Ration boxes I made.

With these new parts, the M3 was back on the workbench! I filled the spaces behind the troop seats with folded Milliput and small bags, ammo cans and a folded tripod for the 30 caliber machine guns. This meant I could not use the rifle racks to stow weapons, but it appears that in combat, these were rarely used anyway. I added a great deal of detail to the running gear, front bumper area, and cab interior. The M-16 featured a large winch on the front bumper. This was usually only seen on the M-3 platoon leader's track, as the standard vehicle had a large roller designed for traversing ditches. As this vehicle lacks the Platoon leader's radio, I decided it was simply a hasty replacement from the supply depot! I added a 3D printed hook and replaced the kit's very thin rope cable with a thicker copper braided wire. The



I had collected quite a few 1:16th scale detail and accessory parts over the years as well, from manufacturers like Verlinden, Jaguar, Kirin and others. So, I had a supply of boxes, gear, stowage, weapons and other items to choose from. Among the best items were the recently released AFV Modeller .30 caliber machine guns, which have the correct M1918 mounts as used on the M3. These are beautifully 3D printed. I also bought the AFV .50 Caliber MG, also 3D printed, I swapped this for the styrene .50-caliber machine gun from the Tasca Jeep kit, detailing it with the brass barrel & PE parts from Aber and the 3D printed ammo box and ammo chain from AFV. I even used a few parts from the old Jim Shirley kit, such as the .30 Cal mounts (with added printed detail parts), and grenade boxes! Never throw anything away!

One of the major downsides of the Trumpeter kit is the running gear, particularly the tracks, which are rather stiff even for replicating the thick rubber of the real bands and hang too loosely. I modified the idler wheel mount with brass tubing to make the tension adjustable (like the real vehicle) and sturdier. With this I was able to achieve a better look.

With construction finished I moved on to painting the big halftrack. As these vehicles were painted in plain Olive Drab without the benefit of camouflage to break up the surfaces, it's important to add variations of tone, thus creating depth and highlights. This makes it a much more interesting model.

I base painted the M3 with Tamiya Olive Drab spray lacquer adding airbrushed darker and lighter OD tones to create depth. I had some custom dry transfer markings made by www.drytransfer.com printed simply in white, which included the

large hood star, bumper markings, and vehicle name. This was followed with several shading and highlighting passes using Lifecolor acrylics, both airbrushed and applied with torn makeup sponges. Mig Shaders were sprayed to add depth and highlights. These shaders are essentially very thin inks which add subtle shades and highlights, along with weathering effects. This was followed by thin washes of Mig "Dark Brown for Green Vehicles", pin washing with a thicker wash of the same color on raised details. I kept drybrushing to a minimum as it was not needed on a model of this size. The machine guns were treated with Mig metallic paints, basing them in black and drybrushing darker to lighter metal colours.

The mud and dirt on the M3 came from a variety of sources from MIG, AK Interactive and other supplies in my stash. I wanted a dirty vehicle but not too wet & muddy, as this was depicting an M-3 post D-Day. Splashes were created with thin pigment flicked on with an old toothbrush.

Internal gear and supplies were then added, using parts from my stash but I also 3D printed ration cans, ammo boxes, and other small bits. The weapons came from Peddinghaus, and are 3D printed with good detail and straps printed in situ. Value Gear also supplied some nice detail parts, including the frying pan!

CONCLUSION

Well, this was quite a journey, but as there's no other 16th scale M-3A1 kit, apart from a few RC models, it is fairly unique and ended up being a very satisfying project. I lived in dread that a styrene M-3 would be announced before I could finish it! I intend on adding a figure or two at some point in a "small" vignette.

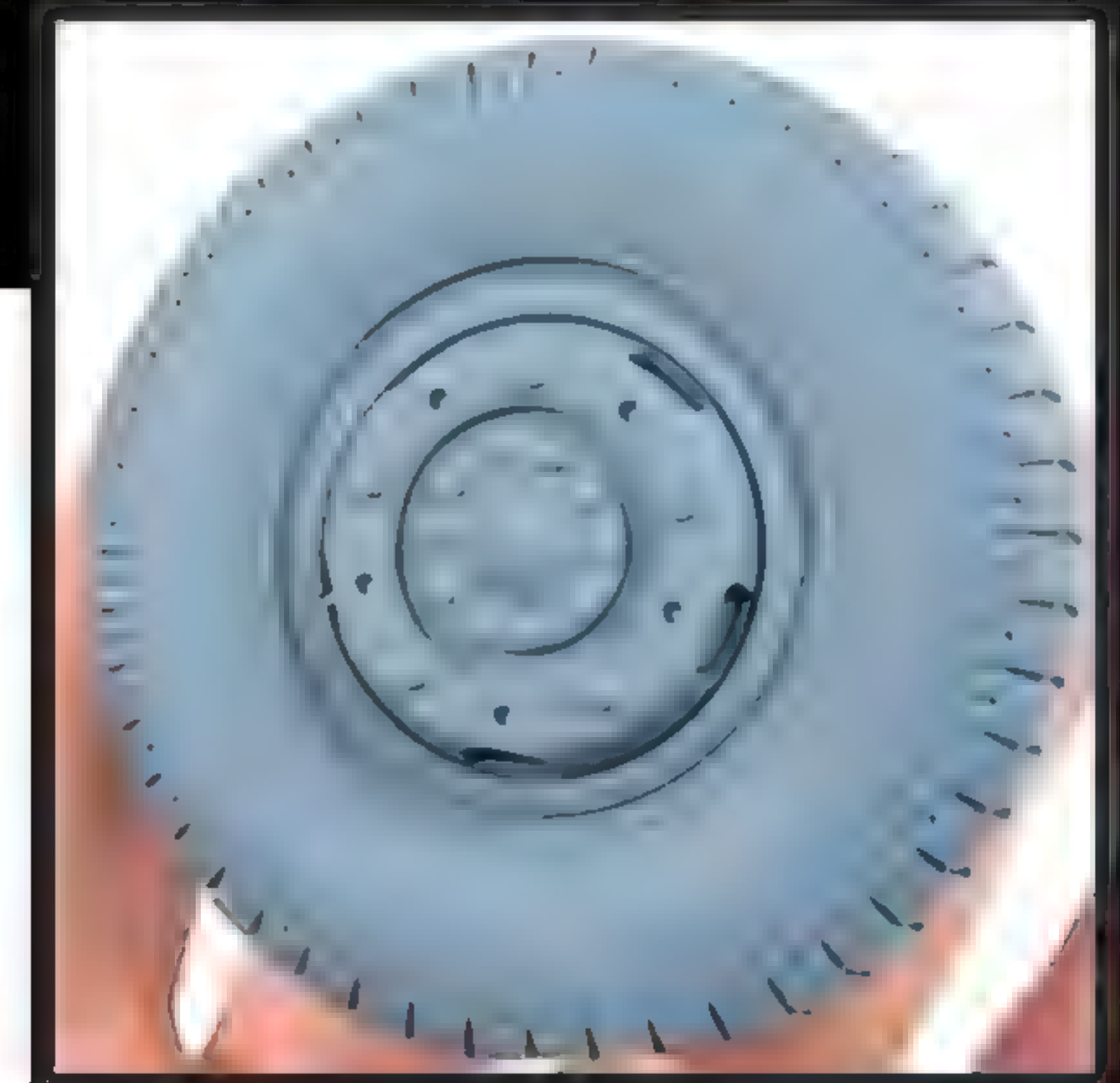




Sd.Kfz. 234 'PUMA'

UPDATE PARTS

FOR THE DAS WERK KIT



Sd.Kfz. 234 Puma Eight Wheel Sets

Regrettably the Das Werk kit tires are the wrong pattern for the Puma which was issued with civilian tread pattern tires which did not stand up well to the demands of service which lead to tires being replaced and the mix of patterns that is so characteristic of the Puma in action. It is frequently difficult to identify exactly which tread patterns are used on certain vehicles due to poor photos, moving wheels or mud but we have selected three identifiable examples and offering these as an 8 wheel pack to allow you to recreate these examples in a more cost-conscious package. If you prefer to create your own mix of wheel patterns we have a range of 7 different tread patterns to choose from sold in packs of 2 wheels. We also have these patterns available as spare wheels which are sold individually. The wheels are printed as a single piece and you simply need to shorten the kit axle parts G25/26 by 2mm to fit the new wheels which are weighted.



1:16

AFV

modeller

Corrected Turret Hatches

So many problems with the kit hatches that there's not room to list them but this set sorts it all out



Corrected Muzzle Brake

Corrects the shape and adds the missing details to the muzzle brake



Tool and detail upgrade set

Corrected and more detailed stowed tools which come with all the tool clasps in position ready to be installed once they are cleaned up. The set also includes a pair of our superb fire extinguishers and our Bosch headlamps with the Puma-specific lamp brackets as well as a replacement horn. Both types of jack are included and both are stowed on their racks ready to fit. Moving to the turret we have included a new T.Rbl.F3 periscope cover which has details missing from the very simple kit version and we also have a replacement insert for the turret ventilator/extractor. Lastly we have included a pair of new antenna bases for the turret and hull positions.



50mm Ammunition Box

Used as Fender stowage on some vehicles.



Dented Exhaust Mufflers

A pair of damaged exhaust mufflers with missing weld details



BIG MACK

The Mack NO was a 6X6 prime mover designed for the US Army in the 1940's by Mack Trucks. Variants NO-1 through to NO-7 were developed, primarily as Artillery tractors, but only NO-2, NO-3, NO-6 and NO-7 were produced in any great numbers.

The truck is of Typical US design for the era, with a long front hood and large cab with seating for 5! Power was provided from a 6-cylinder, 159hp gasoline engine with five forwards gears and one reverse gear, propelling the Mack to a top speed of 32 mph on huge 24-inch tyres. A reduction gear allowed for high and low gearing and a Power Take Off (PTO) case provided a linkage to the powered front winch.



RETURN OF THE MACK...
AND THE RETURN OF
IAN BARRACLOUGH
WITH ANOTHER ONE OF
HIS HEAVY MOVERS



The Mack could tow loads of upwards of 22 tonnes and hold 7.5 tonnes of cargo, most likely artillery ammunition in its cargo area. A small crane and pulley device was fitted from the NO-2 variant onwards to assist with lifting the gun onto the towing eye. A specific universal joint type towing eye and lifting bracket were provided for this purpose. A standard towing eye was also provided, usually stowed above the left-hand fuel tank in a specific bracket (the kit has all these parts).



1:35

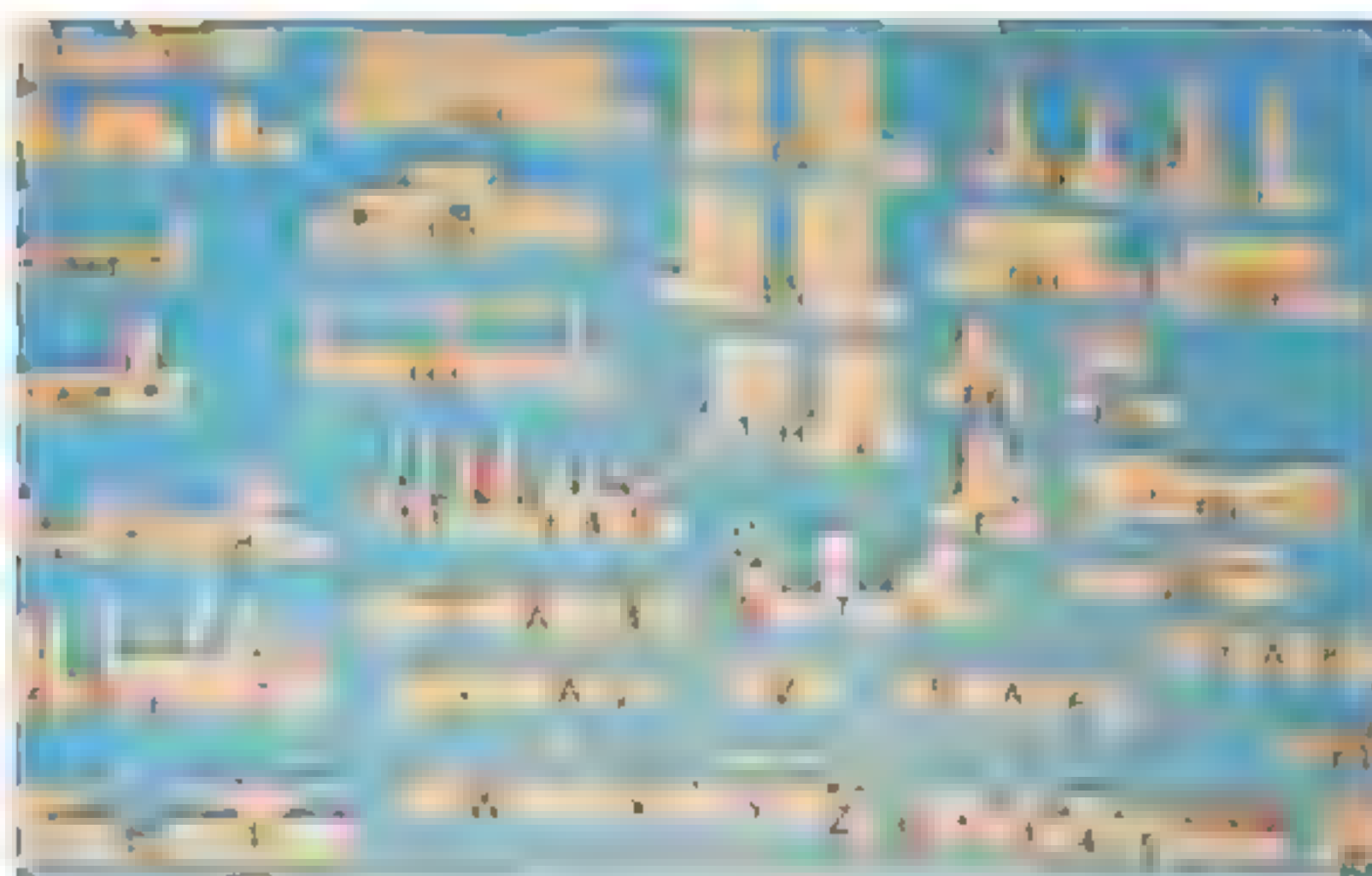




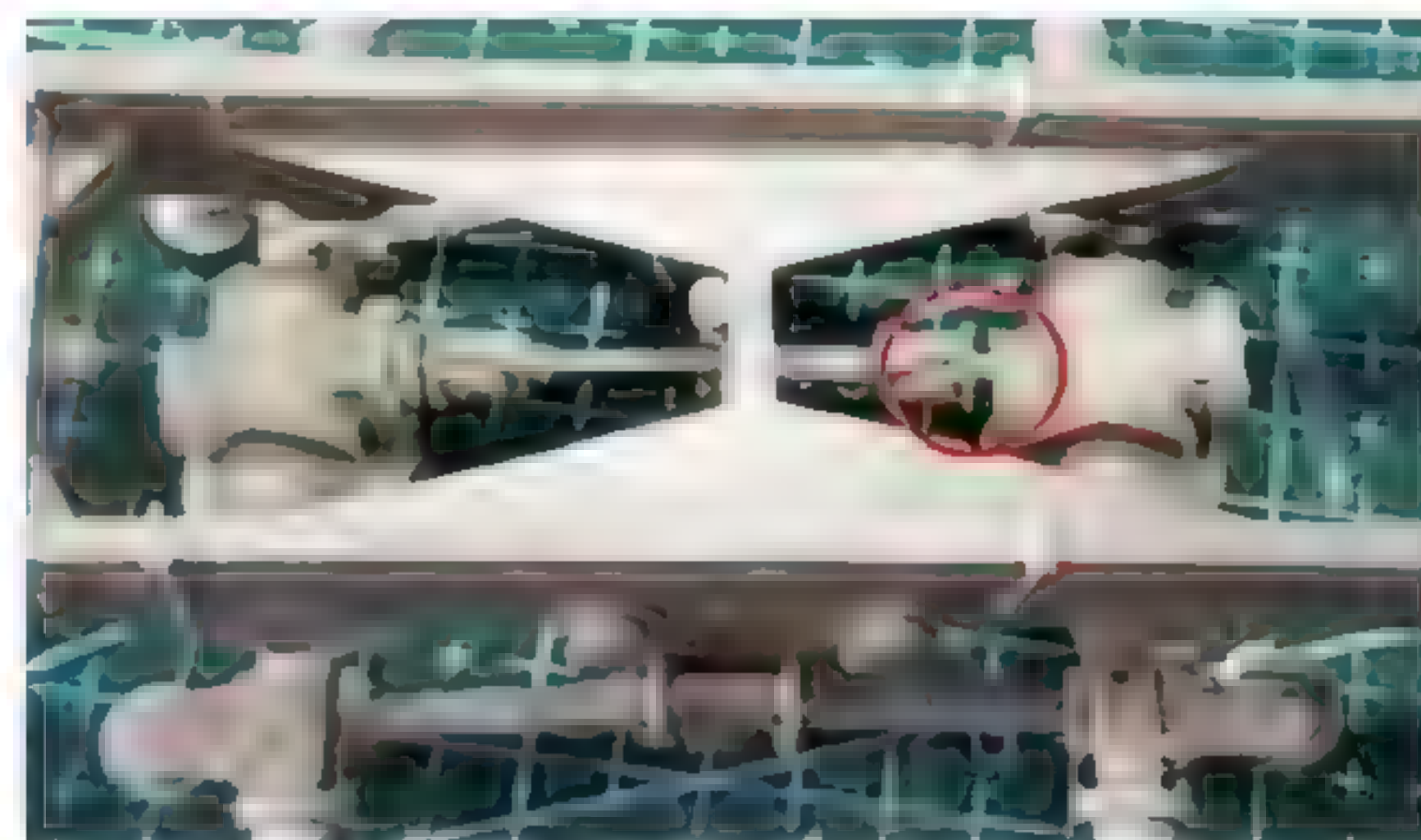
The Newland Models Mack is presented as an all-resin kit, with some plastic rods and chains also provided in the box. The resin is crisp and very well detailed; although I did find the resin a bit 'flashy' – but nothing that couldn't be cleaned up with a sharp scalpel blade. I had a couple of breakages in the bags, one of which was the arms for the canvas cab tilt, although two of these were provided, so well done to Newlands for predicting this! All parts are numbered, and a full photograph parts list is provided. Either a model NO-2 or NO-6 can be built, with the differences described in the colour photo type instructions. As always with resin and multimedia kits, read and understand the instructions before starting. Certainly, on this kit, there are photos later in the instructions that show areas in better detail than some of the images earlier on.



Parts are sent in resealable bags, well protected inside a cardboard box. The instruction booklet is clear and nicely copied in colour.



Nice colour parts list, although I did find some misnumbered parts and parts not included.



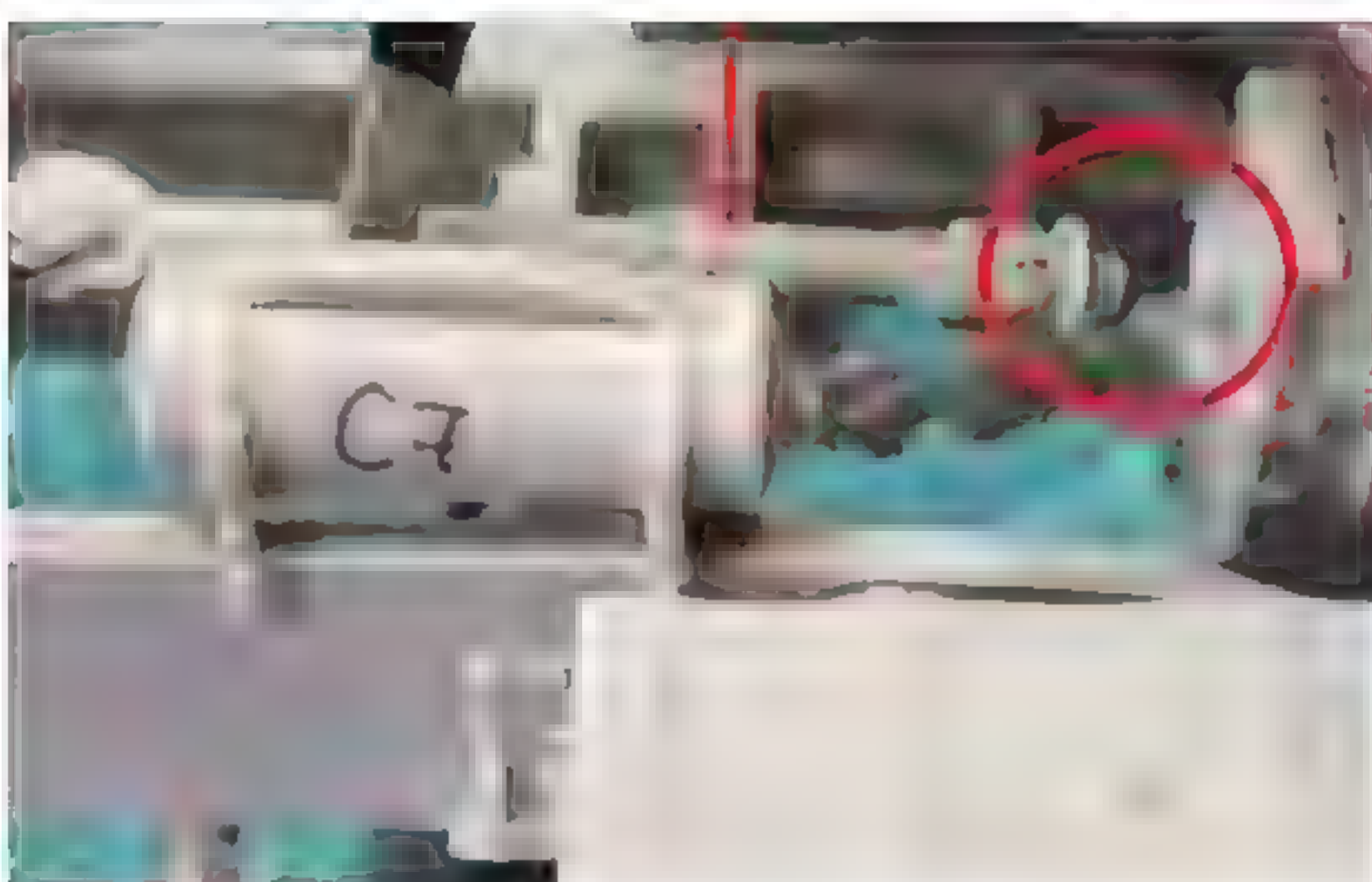
I did find that the drive shafts were a little too short and didn't fit at the joints (circled)

I'll mention more here about the instructions. I found quite a few mis-numbered parts, un-numbered parts or parts not shown in the instructions. I spoke with Newland throughout the build process, and they quickly gave me the corrected numbers and locations. I know Newlands put their instructions up on their Facebook page, so if they haven't already done so, I would expect the instructions to be updated soonest. If you already have this kit, I'd check there before starting.

Building starts with the large, single piece chassis. The frame on my model was very straight, but the instructions do detail how to

deal with warped parts using warm water if needed. Despite being mostly hidden, the detailing of the chassis, suspension and running gear takes up the first half of the instruction booklet. I did find that two of the drive shaft parts were a little short and did not meet the universal joint at the differential cases of the middle and rear axles. I cut out the thinner part of the drive shaft, drilled out the ends of the thicker cut parts and fitted brass tube in its place.

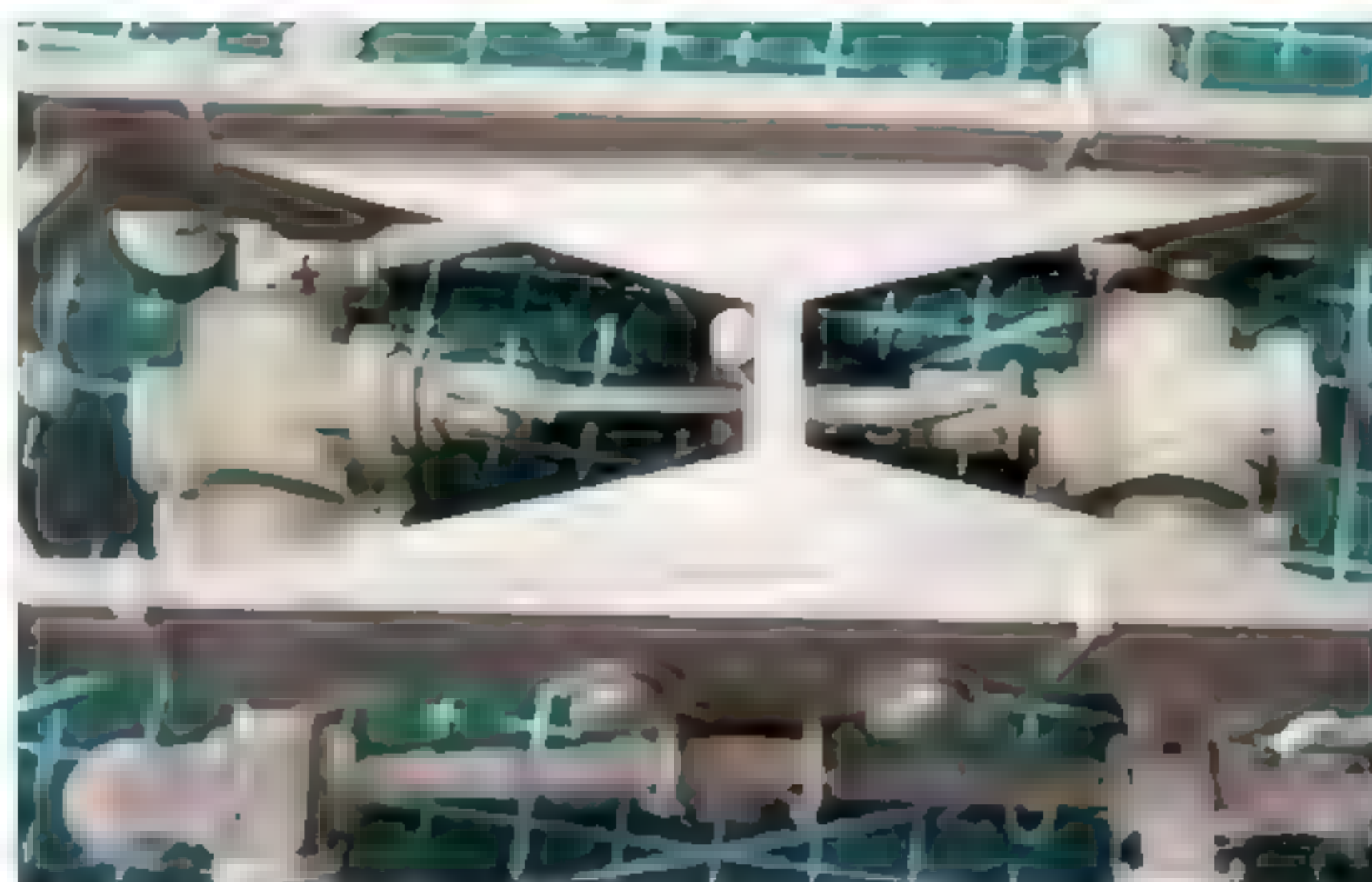
This then allowed me to extend and retract the drive shafts so that they could be fitted into position prior to adding a drop of thin CA glue.



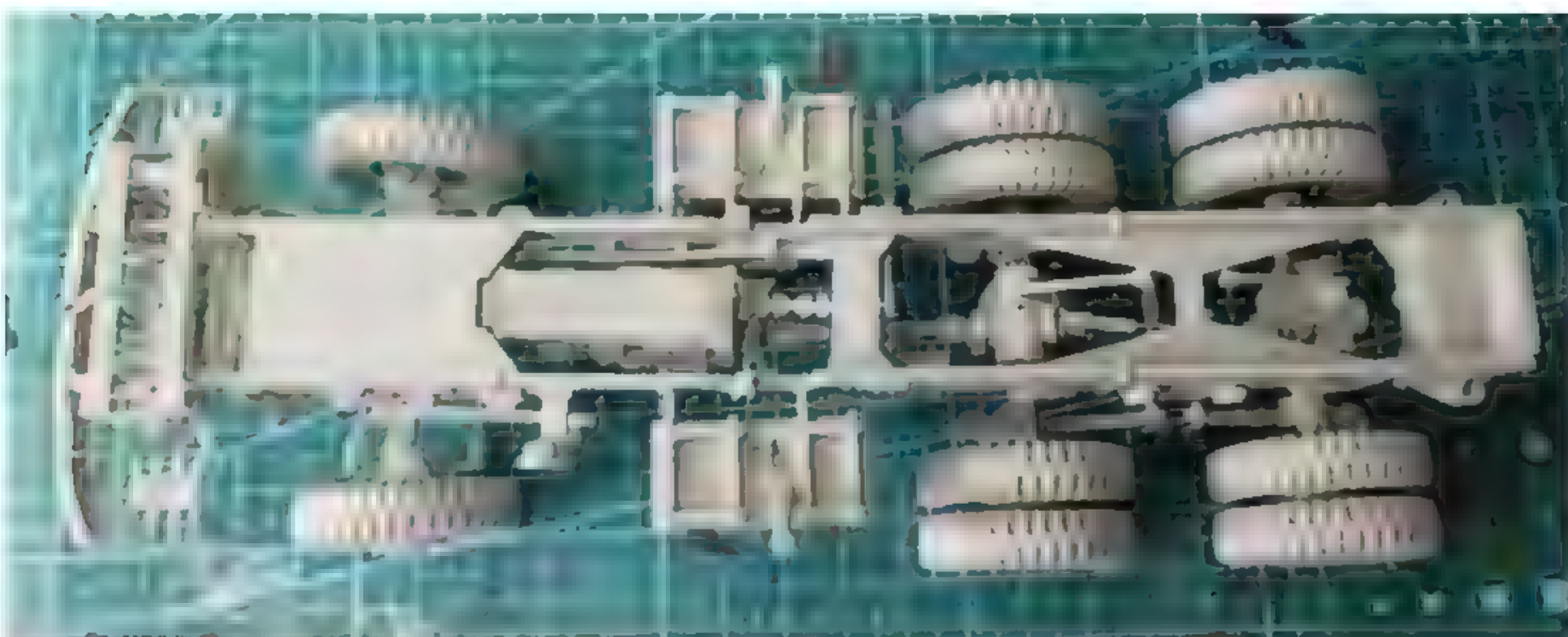
Chassis build-up. I did find that the drive shafts were a little too short and didn't fit at the joints (circled).



Brass rod replacement shaft.



Completed chassis parts.



For me, the final part of building any chassis type vehicles is to fit the wheels. As the chassis is bare at this point it allows the wheels to be moved, ensuring that they sit flat to the ground. On this model I drilled out the rear of the hubs with a drill bit just slightly larger than the existing hole. This allowed me to have a bit of 'wobble room' in moving the wheels prior to adding CA glue to the joint. I added a few brake hoses from thin solder wire to the rear of the six wheel stations. These are not an exact copy of the real thing, but enough to make these areas look busy – I did the same to the backs of the front and rear fender brake hose connections.

The front winch frame and body is very complex, and the instructions are a bit lacking in this area. I did find a great workaround on the Net-Maquettes (<https://www.net-maquettes.com/pictures/mack-no-truck/>) web page that shows most of the areas on the Mack in good detail, although it does

also have some more modern fittings, so beware.

The Cab again is a large single piece 'tub', into which seats, gear sticks and steering mechanism are slotted. I did break my steering wheel so replaced it with a generic 3D printed one. At this point I still had the hood loosely fitted, so found it difficult to align the location of the cab front to rear. There's a hole the cab floor for the steering wheel rod, which should align with the top of the steering box on the chassis, so this can be used to help with alignment. With the cab located and glued I also glued the hood into place. The front hood sits centrally over the front of the chassis. There's no engine, but the hood completely covers this area anyway. At the rear of the cab I struggled to fit the folded canvas cab tilt with the two rear legs of the machine gun ring fouling it. I used a round file to create two notches in the canvas tilt aligning with the two legs, allowing the canvas tilt to sit snugly around the legs and look far more natural.



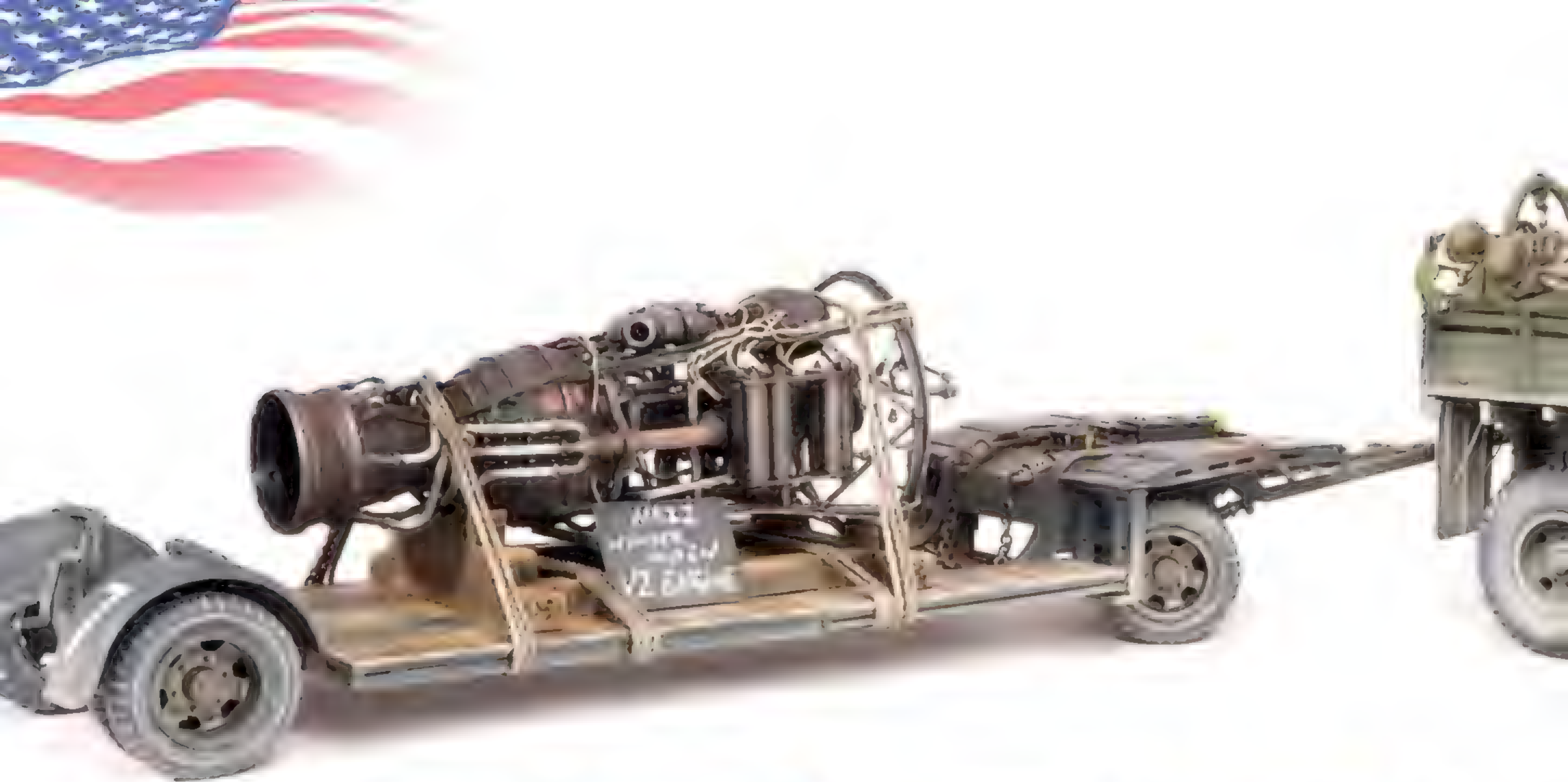
Aligning the cab and hood proved a little difficult. I used the steering shaft and steering box to ensure the cab tub was aligned, then aligned the hood to this



The cab canvas tilt need a bit of fettling to fit around the two rear GM ring legs. Also note the broken resin steering wheel and 3D print replacement.

The cargo area behind the cab is a simple construction, but again there is no real location points for it. I used the mudguards for the rear wheels to assist with the front to rear alignment, ensuring that the wheels were located centrally. The seats in the cargo area are foldable, although are only shown in the instructions in the down position. The plastic rod provided in the kit is used as the legs for these seats and slide up and down in elongated brackets fitted to the inside of the cargo bed walls. The two huge spare wheels are also located in the cargo area. These fit inside brackets that should have their tops slightly bent over by applying heat, something that I forgot to do!





Base colours on. Stowage from Red Zebra is attached over rolled Milliput tarps.



Chain for the lifting pulley is provided in the kit. Good reference will be needed to get the chain layout correct.

The model was primed with matt black from a rattle can, over which progressively lighter coats of Vallejo Olive Drab were mottled, highlighting the upper areas and centre of the larger panels. I also used Vallejo Light Olive as a final highlight coat. I applied Accurate Armour decals from their Diamond T Tank Transporter set – those of you with eagle eyes will notice that the data plate on the left-hand door isn't quite correct for a Mack NO! Once dried and sealed with Future Klear, I applied a deep brown wash of Vandyke Brown and Sepia oil paints, heavily thinned with odourless thinners. This was seeped into cavities and crevices and around detail such as bolt heads and wood grain. After any excess was cleaned off, I used a wide tipped brush, soaked in thinners to drag downwards on vertical surfaces. This adds subtle dark streaking that will be further faded later with the addition of some dust coats.

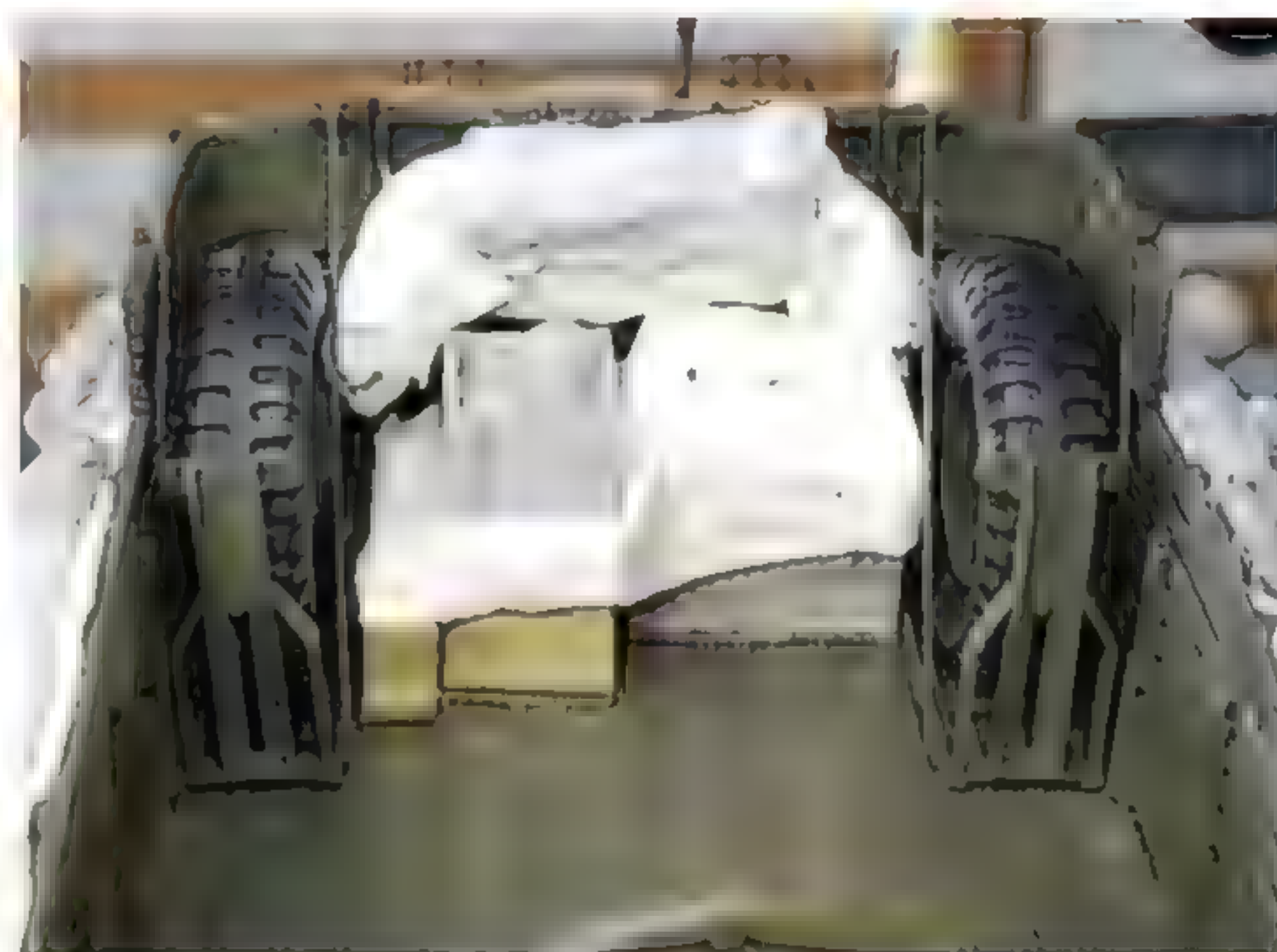
I used LifeColor Liquid Pigments Dark Dust and Road Dust colours applied heavily with a thick brush to the lower areas around the

wheels, suspension, and chassis. This time using a wide flat brush soaked in water, these were streaked upwards on the vertical surfaces and pooled around the corners and crevices of the horizontal surfaces. The joy of using these water-based colours is that they can easily be wiped off using dampened cotton bud or micro brush. Dust colours were finished off using Tamiya Buff and Deck Tan colours, heavily thinned and airbrushed around the lower surfaces. These large trucks kicked up a huge amount of dust, so more of these colours were applied to the cargo bed sides and rear.

Edges and corners were dry brushed with Tamiya Flat Black, before using a mix of Mig Productions Gun Metal weathering powder and a soft graphite stick to add a metallic effect to the worn edges of this workhorse. The same effects were applied to the chains and pioneer tools.



I managed to spill superglue remover onto the cargo bay floor. A scrub with some soft tissue and respray with olive drab and the bay looks good as new.



I then covered up my great repair with more stowage!



Stowage comes to life once painted.



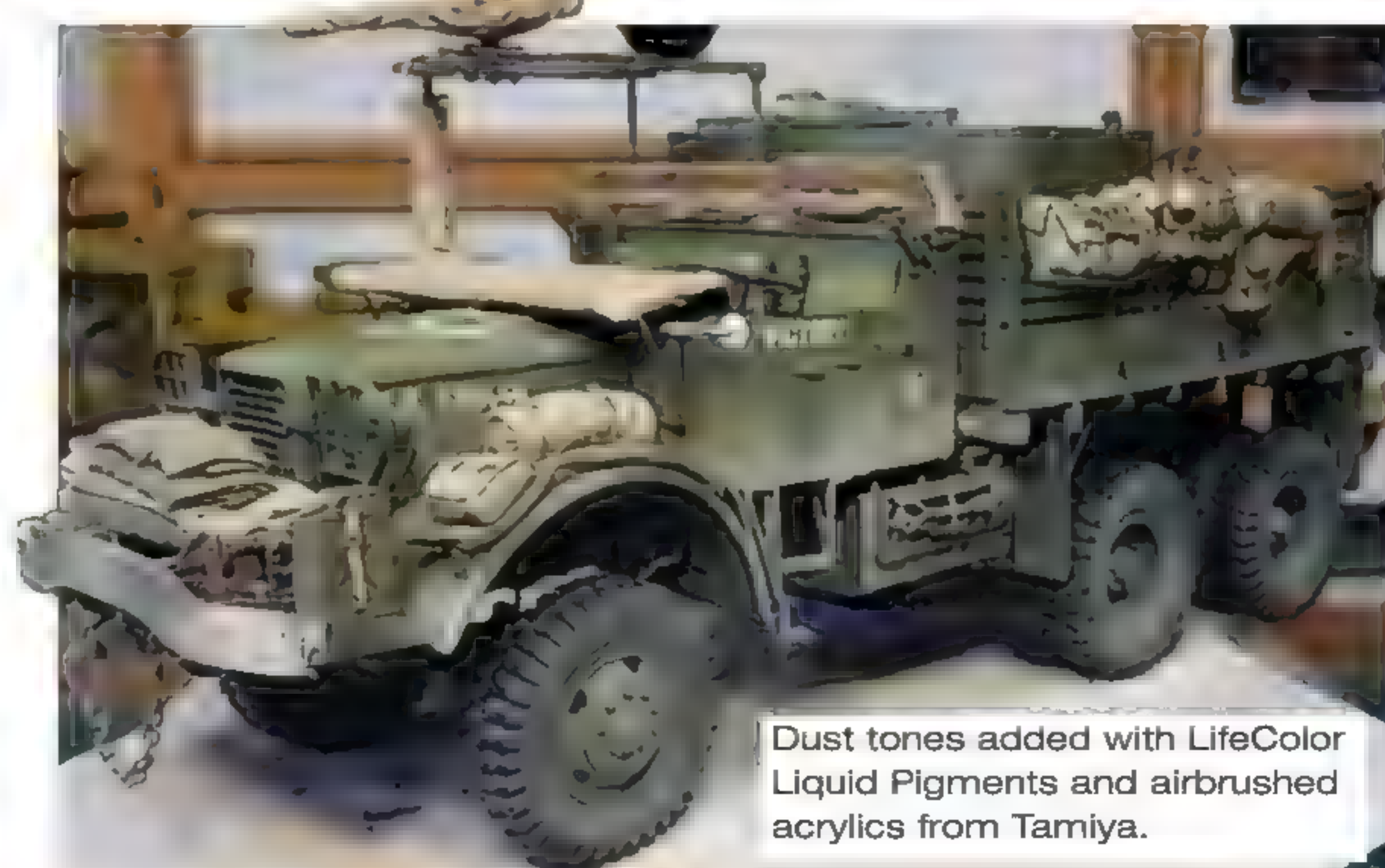
Stowage from Red Zebra was also added to the front fenders and above the winch.



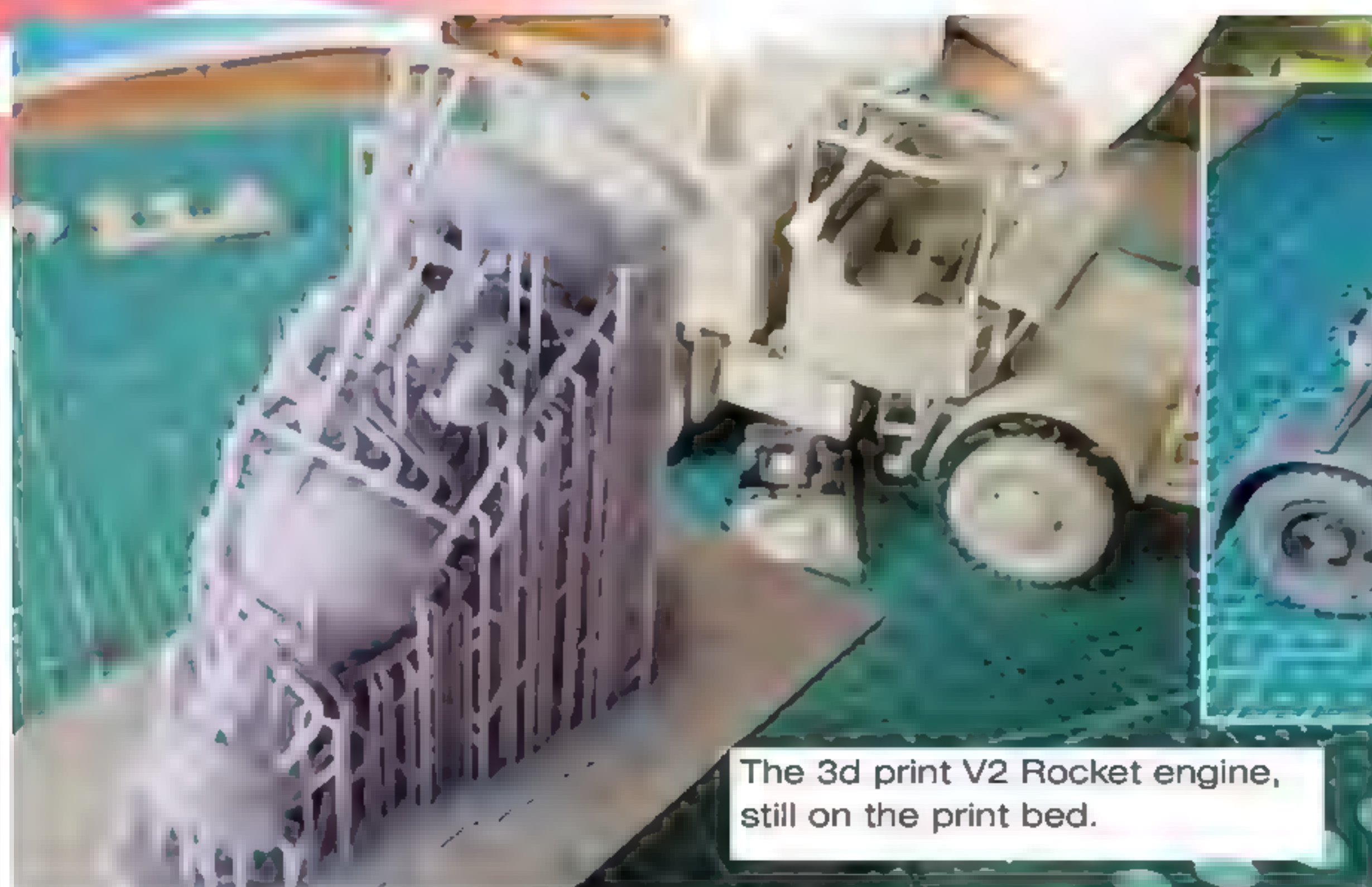
Preparing to add a oil wash of highlight colours.



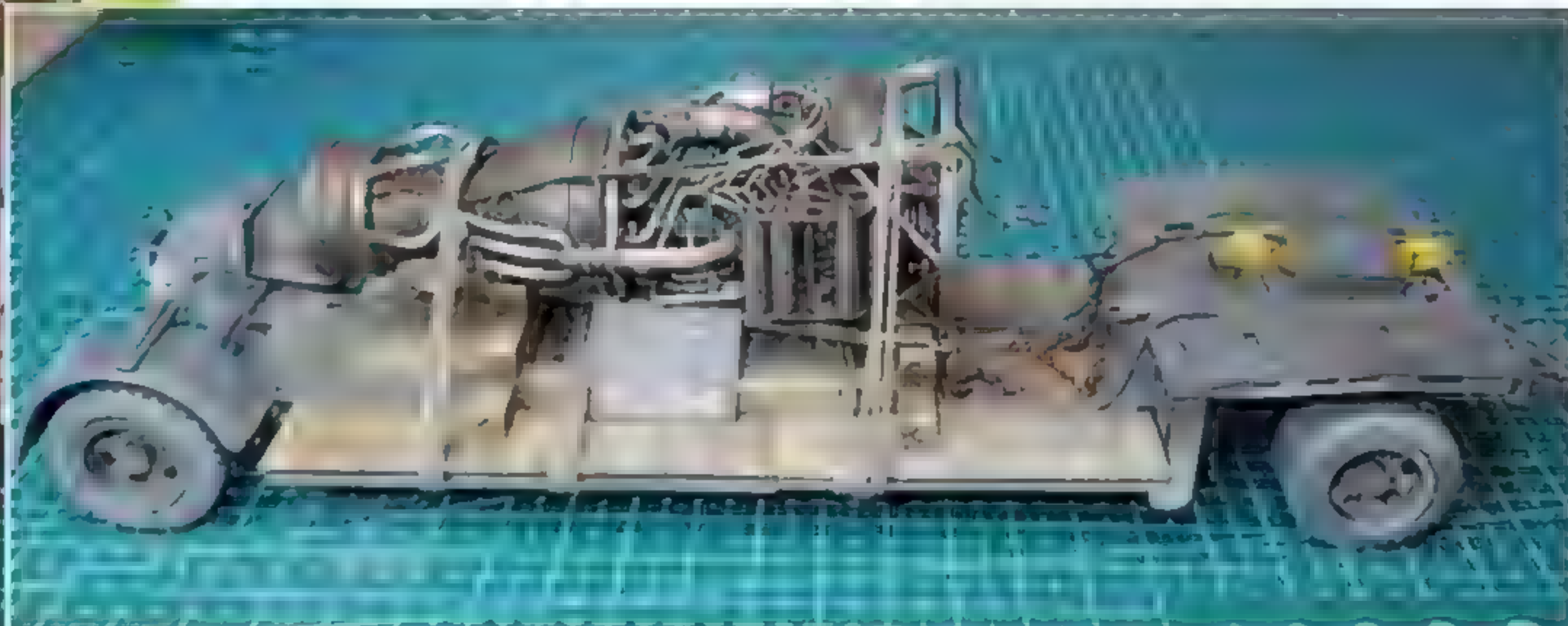
The oil colours are dabbed in small spots in the areas to be highlighted, then blended using a wide flat brush and clean thinners. This stage should be applied over a matt coat.



Dust tones added with LifeColor Liquid Pigments and airbrushed acrylics from Tamiya.



The 3d print V2 Rocket engine, still on the print bed.



The trailer with V2 engine fitted. These trailers were first used early in the war, so I wanted to show it looking battered and old.

I wanted to depict something a bit different from the standard towed artillery piece. A search online showed US trucks, although not specifically a Mack NO, involved in Operation Paperclip – the collection of German technology at the end of WW2 by Allied forces. I found a 3D print file for a V2 rocket engine and printed this myself as a single piece print. I added some hoses and extra pipes to 'busy-up' the print and simply painted in various shades of black and grey, highlighting again with gun metal and picking out cables and hoses in Vallejo Off White. I built up a simple wooden frame from balsa wood and used left-over rope 'cables' from old Tamiya tank kits as tie-down rope.

The trailer is the Das Werk 1/35 Sonderanhänger 115 - 10 Ton Tank Trailer. I thought that as the V2 rocket engine had been pilfered by US troops, then it would be likely that the trailer would have also been. The trailer was painted in the same method at the truck, using various shades of Tamiya and Vallejo greys. The final model was mounted on a matt black piece of laminate covered MDF, nothing too fancy but sturdy and allows the model to be transported easily and safely. Another great release from

Newland Models and an enjoyable change from my usual modelling diet of Modern British and Warsaw Pact machines. Apart from a few discrepancies in the instructions and very minor fit issues, the kit falls together as much as a resin kit can. I am no stranger Newland Models, having built their stunning Willich AVRE as featured in AFV Modeller Issue 130; and their more modern Trojan AVRE, again featured in issue 135. Newland Models have some great releases of some remarkably interesting subjects and I'd suggest to anyone fancying dipping their foot into the sometimes-complex world of resin and multi-media kits, that this would be a great place to start.

A 1/35 Mack NO kit has long been absent from the model marketplace, with kits from Wespe and Azimut difficult to obtain and out of production, so it's great to see the Return of the Mack!







Sturmgeschütz III Ausf.G



WAFFLE+ WARRIOR

The StuG is an absolute classic and a must-do project for any armour scale modeller in my opinion. Unlike the Tigers, Shermans, and T-34s, it possesses a higher level of aesthetics. It has an advanced design for its time and is undoubtedly a gem of engineering from that WWII era.

Therefore, it's bizarre that in my 15 year plus 'career' as a modeller, I haven't built a single version of it besides the ones I made in my childhood. The StuG had an astronomical number of versions and modifications; based on the Pz. III, Pz. IV, with long-barrelled and short-barreled guns, various types of Zimmerit, numerous field modifications, and camouflage patterns.

I finally decided to fill this gap. My favourite version is the StuG III Ausf.G from the end of the war, especially in the waffle-pattern camouflage from the Alkett factory and with additional concrete armour.

Okay, enough waffle, let's get started!

**Modelled by
Andrei Grechkin**





I decided to create a composite 'image', without a strict attachment to a specific vehicle or unit. I based it on the suggested one from RFM's kit, number 104 of the 202nd Brigade, Eastern Germany, Spring 1945

I chose the new RFM 5088 kit with a full interior, which turned out to be excellent for realizing my vision: good plastic, high detail, and only minor inaccuracies in the parts, which are easily corrected, but I won't focus on that.

My main interest is creating damaged vehicles with vivid signs of use that best convey the face of war and allow for the full potential of painting and weathering techniques to be realized.

In this case, I decided to reproduce damaged and partially missing fenders, a missing final drive cover, and partially missing road wheels without tyres.

Therefore, I used a large amount of aftermarket parts and modifications:

- Griffon bpl35028 - a huge set of photoetch!
- Friul atlL-83 pz. III/IV ostketten tracks
- Panzer art re35-273 - burnt out wheels
- Aber 35I-60n - stuk. 40 L48 barrel
- Aber 35I-70 - MG 34 barrel
- T-rex and Elefant - brackets & clamps
- Panzer Art mantlet

For the Zimmerit, I used Apoxie Sculpt and photo-etched stamps of various sizes to reproduce the characteristic 'waffle' pattern of Alkett. By applying Zimmerit myself, I can create unique damage patterns, which will look impressive after painting.

Missing or absent weld seams were also made using red Apoxie Sculpt, because the contrast allows for more precise detailing of the texture — it is simply easier to see during the work

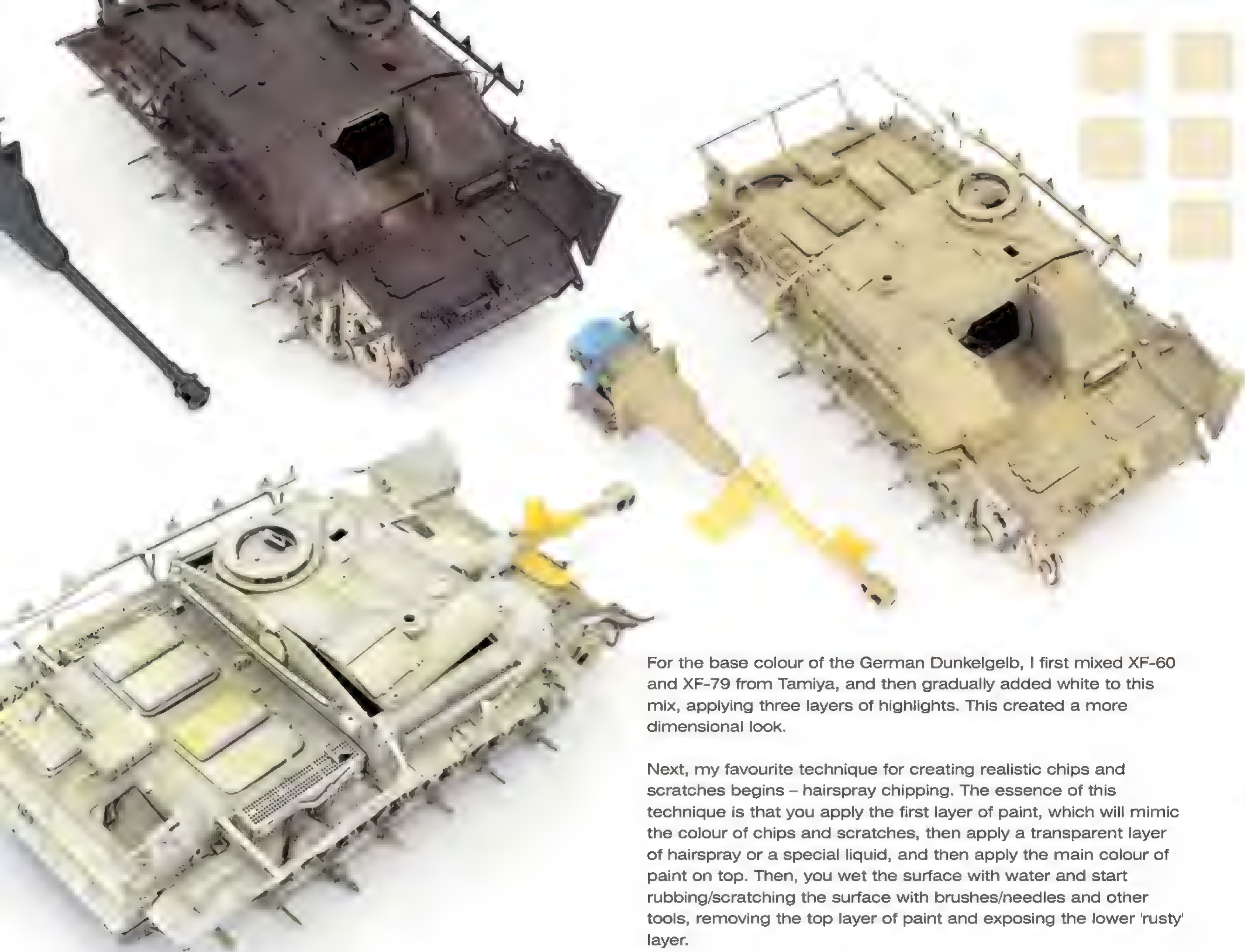
I added extra armour often seen in period photographs, such as track links from various tanks and a concrete block on the front of the casemate, also made from Apoxie Sculpt.

The interior was built straight from the box with minor modifications, such as torn wiring and minor damage. Every time I promise myself not to build interiors because the effort isn't worth the end result; you spend as much time on it as on the entire model but get only about 10% of the effect, even if all hatches are open. In this case, since I decided to make a knocked-out vehicle with open hatches, I decided to do the interior.

However, even though I built the interior straight from the box and didn't meticulously detail it, the painting still took a lot of time. Whether it was worth it... that's for you to judge. There isn't much to say about the painting of the interior. The same techniques were used as for the exterior which will be discussed soon... hairspray chipping, oil washes, dust with enamels, and oil grease with enamels and oils.

After masking the interior it's time to move on to painting the exterior. I started with a brown primer from Mr. Surfacer and added colour variation with different brown shades from Tamiya, as this base layer will serve as our rust and bare metal later on.



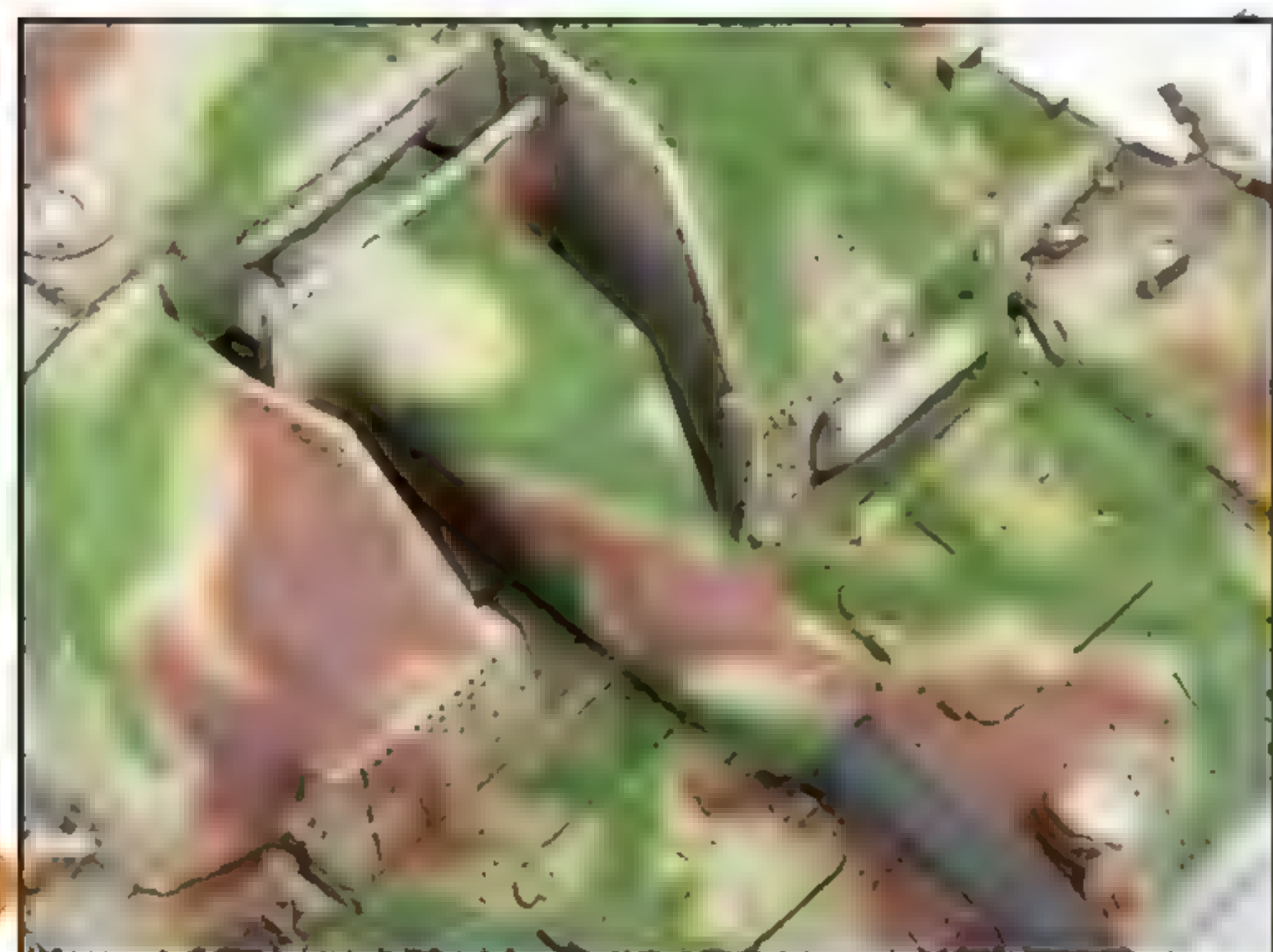


For the base colour of the German Dunkelgelb, I first mixed XF-60 and XF-79 from Tamiya, and then gradually added white to this mix, applying three layers of highlights. This created a more dimensional look.

Next, my favourite technique for creating realistic chips and scratches begins – hairspray chipping. The essence of this technique is that you apply the first layer of paint, which will mimic the colour of chips and scratches, then apply a transparent layer of hairspray or a special liquid, and then apply the main colour of paint on top. Then, you wet the surface with water and start rubbing/scratching the surface with brushes/needles and other tools, removing the top layer of paint and exposing the lower 'rusty' layer.

For the green colour of the camouflage, I used a mix of XF-5 and XF-3, lightened with white XF-1. For the brown, I used XF-10, XF-79, and a drop of XF-7, also lightened with white. The first camouflage attempt didn't satisfy me, which sometimes happens.

So I decided to repaint it completely. The second attempt met my expectations. For chipping the camouflage, I also used the HS technique, applying chipping fluid between each new layer of paint. However, note that in areas with Zimmerit and concrete armour, I only chipped down to the base yellow layer to show that they are made of cement, not meta. I also decided to paint the barrel with dark grey paint, which was often seen on vehicles at the end of the war. Most likely, the barrels were replaced in repair workshops with whatever was available and didn't have time to be repainted.



The advantages of this method are the speed of work and, most importantly, achieving realistic and chaotic chips in both size and shape, which is very difficult to achieve with manual chipping. This time, as usual, I used Chipping Fluid from AK or Ammo.





Next, I painted the areas where the Zimmerit was damaged or missing with red-brown acrylic paints to mimic the factory primer.

Then I applied a transparent, thinly diluted yellow acrylic filter. This technique helps to unify the overall look of the vehicle after applying various techniques and brings harmony to the overall appearance.



Next comes my favourite stage – weathering with oil paints. In my opinion, this is the most powerful tool for a modeller, allowing the recreation of almost any weathering effects – adding colour nuances, creating depth, simulating rust, dust, dirt, soot, oil stains, and much more. Throughout my more than 15-year modelling career, I have tried every weathering product, and nothing can beat the versatility and effectiveness of oil paints, in my view.

We start with the almighty wash! This is the most common technique that provides the maximum visual effect with minimal effort. Using thinly diluted brown oil paints, we first apply the wash to all recesses, adding artificial shadows and giving the model more depth.

Then, when the oil starts to dry, we use a brush dipped in white spirit to carefully remove the excess oil, leaving it only in the recesses.



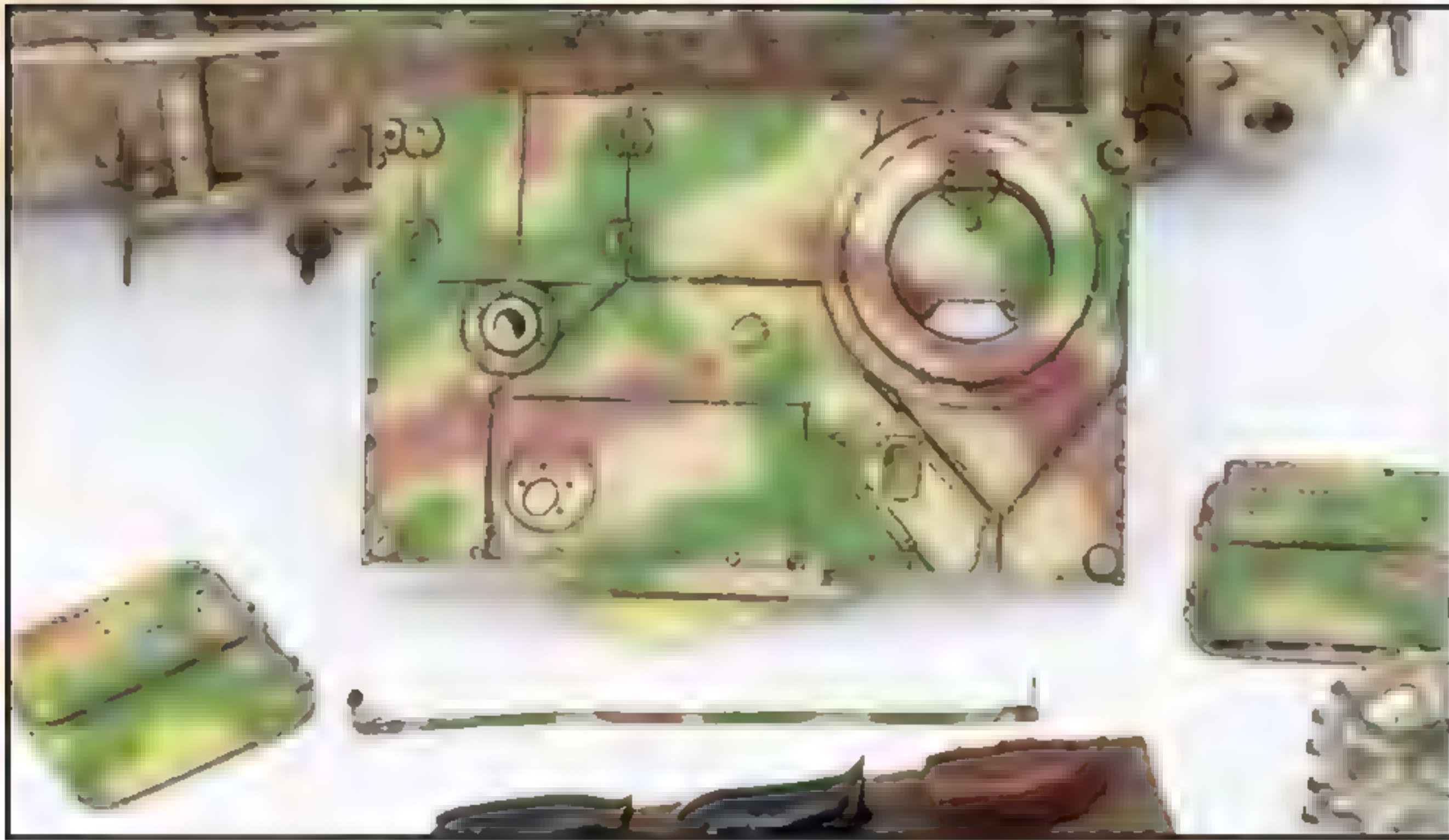
The Zimmerit itself also needs chipping – we use a brush to paint chips and scuffs with the same light grey shade of acrylic paint.



Next, I added a small detail that I really like on vehicles with waffle pattern Zimmerit – perpendicular streaks – light grey traces of cement in places where the Zimmerit has chipped off. We paint them with light gray acrylic paint. For brushwork, I always use Vallejo acrylics, simply thinning them with water.



Now I switched back to oil paints and use the oil dot technique to add richness to the shades of each camouflage colour. The principle is quite simple – we choose shades that are close in tone to the base colour but with variations. We also consider the logic of how light falls on each detail – for the uppermost and well-lit parts, I chose lighter shades, and for recesses or lower parts, I chose darker shades. In short, we use the same principle of light and shadow gradient as when modulating the base layer.



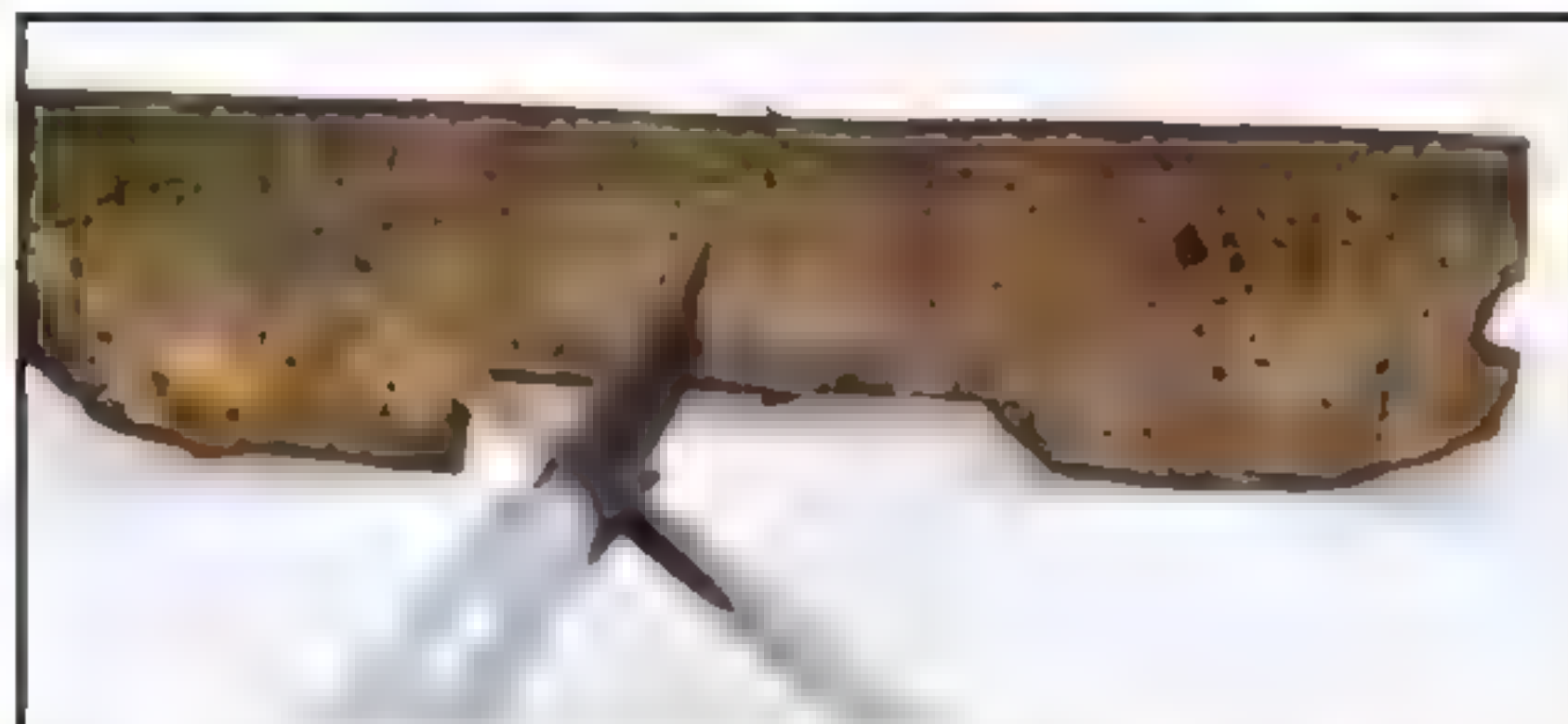
After applying the oil dots with a brush, I gently blended them with a brush slightly moistened in white spirit – on some parts with vertical movements, on others with circular movements for greater surface unification. At this stage, you can intentionally leave some of the oil dot traces visible, such as vertical streaks, which will also imitate rain and dust streaks.



I gradually started adding details and various clutter. On the rear, we place sandbags from an unknown manufacturer. The material resembles a tea bag but is denser. I place them in position and cover them with several layers of thinly diluted PVA glue to shape and fix them. I also added a jack to the sandbags.



Now for the most enjoyable part, in my opinion – adding rust effects with oil paints. My all-time favourite combination of colours for rust is Burnt Umber and Burnt Sienna. I add rust in two ways: either by fully following the pattern of the chips and painting over them, or by selecting entire surfaces or details and applying a semi-transparent layer of paint to rust them entirely. In both cases, after applying the paint, I gently blend it with a brush moistened in white spirit. This way, the chips will display 50 shades of rust and convey the feel of real metal.



The next powerful and simple technique that gives surfaces a worn look, adding realism, is speckling. Using the same mix of rusty oil paints, carefully spatter it from the brush using a toothpick or another object. It is important to get the right paint consistency – if it is too thick, the speckles will be too heavy; if it is too thin, they might be almost invisible. Try not to overdo it at this stage, as it is very easy and quick to apply, and you can get carried away. Remember the golden rule of weathering – less is always more. You can always add more effects, but removing excess is often difficult. Blend these rust specks with a brush moistened in white spirit, but leave the visible center of each spot – the goal is not to blend them entirely so that they become



And here is the final result of all the work with oil paints.

It's time for the final stage – dirt and dust.



Since I am making the vehicle for late dry spring, I decided to use my favourite mix for dry, cracked mud: plaster, real soil, sea grass, light dust pigment, and Vallejo crackle medium.



Apply the resulting mixture with a brush to the places where dirt would logically accumulate.

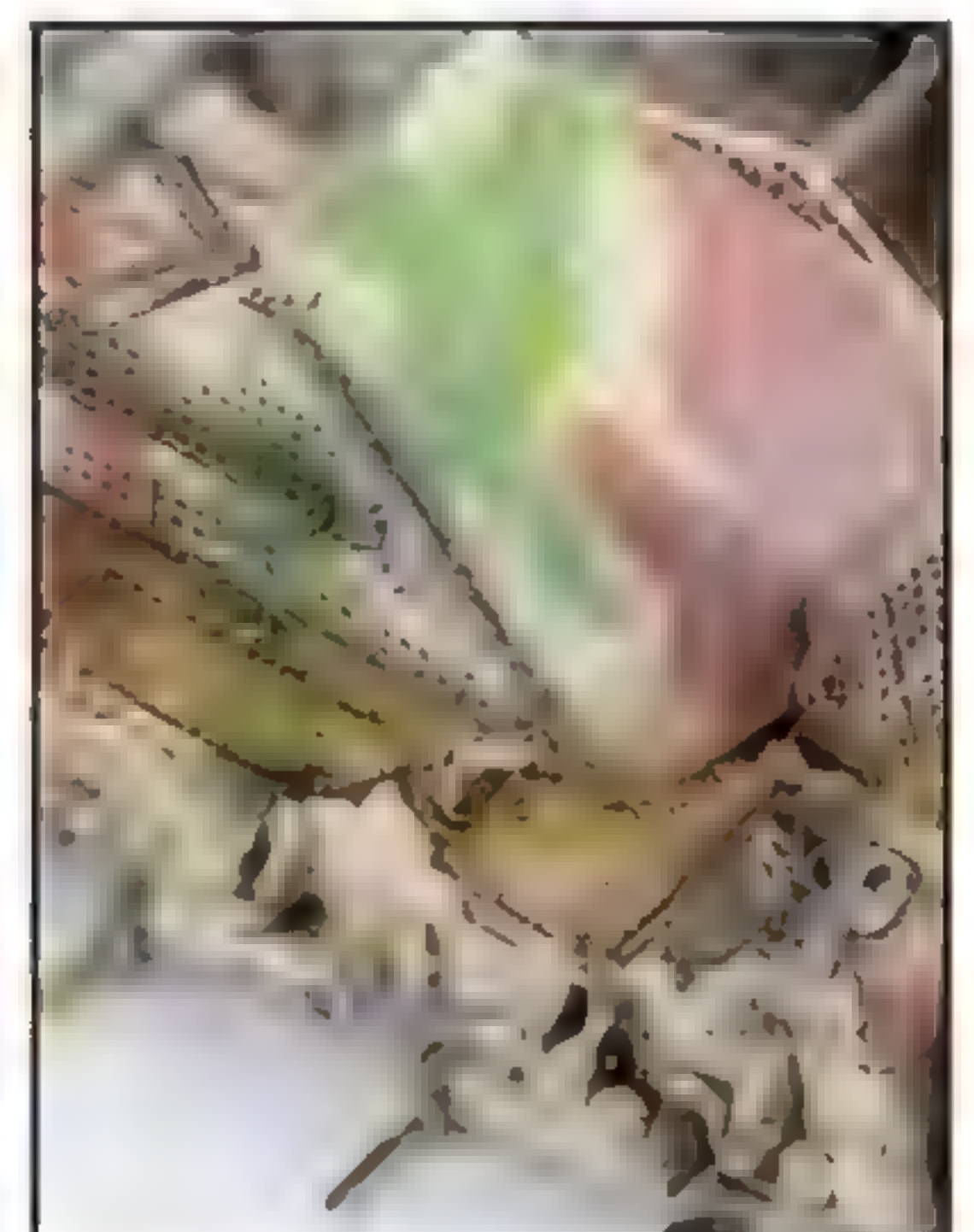


When the mixture dries, it creates an interesting cracked appearance. It's important to experiment with the proportions of the ingredients to achieve the desired amount and size of cracks – try it first on a piece of plastic and only then apply it to the model.



Next, I moved to the upper hull. On the horizontal surfaces, sprinkle real soil of the appropriate scale size and seagrass to simulate grass, and fix it with Ammo sand & gravel glue. You can slightly dilute this glue with Tamiya lacquer thinner to make the glue layer thinner, but be very careful, as lacquer thinner can dissolve not only all the paint on your model but the entire universe.

Never touch the glue with thinner on the model with brushes! If there are too many visible glossy traces left after the glue dries, lightly cover them with matt varnish.

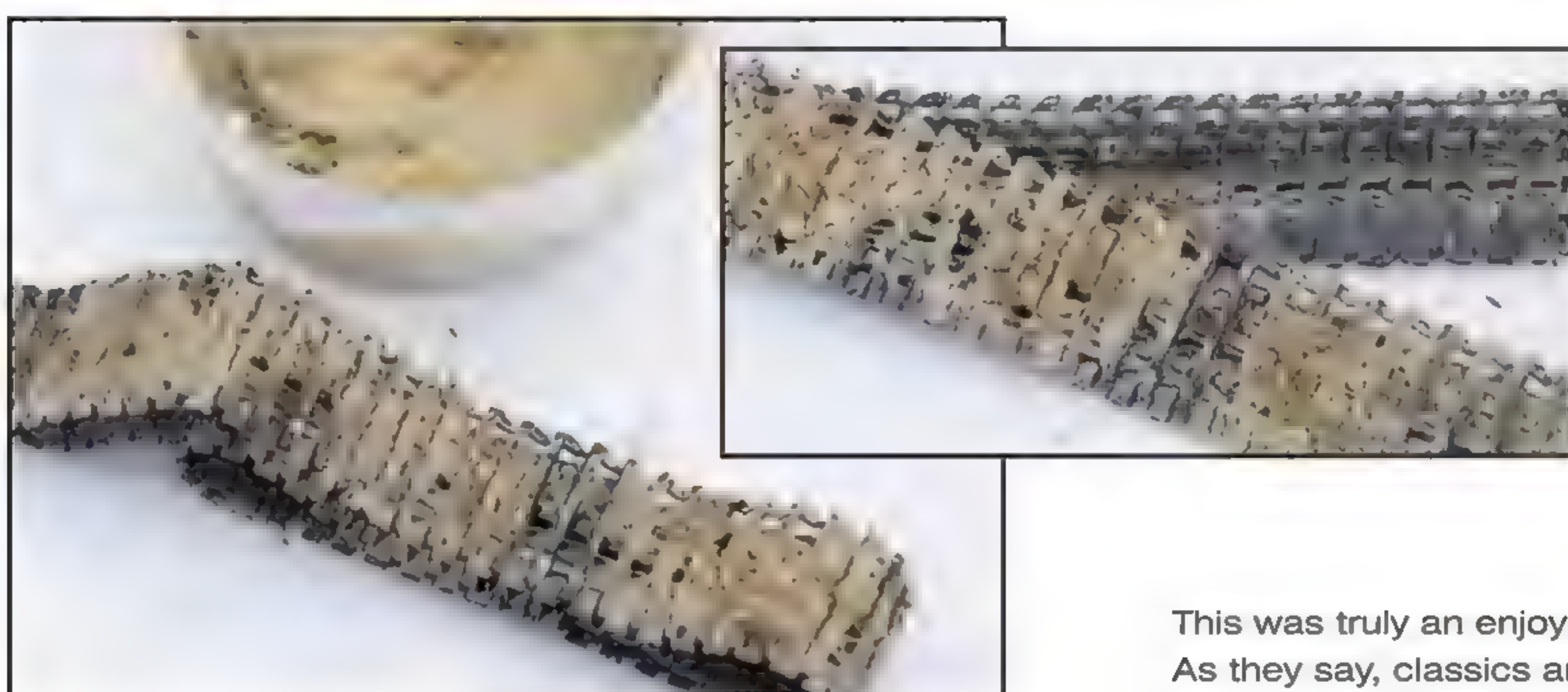




Lightly cover the wheels with the same mud mixture used on the running gear. By the way, while the mixture is still wet, you can moisten it with water and gently blend it onto clean surfaces to create a natural layer of thin dust of the same colour as the mud. This makes the model look even more uniform and harmonious.



Next, I add the final touches: using darker shades of enamels to make the mud on the running gear more varied, and conversely, I complicated the soil on the horizontal surfaces of the upper hull with light grey dust enamels. I added a bit of rust in various places, as well as oil and soot stains.



And the final detail – the tracks. Paint them in dark brown and grey shades, then use sandpaper to go over the teeth, exposing the metal and giving a natural shine in the worn areas. Then add rust effects in various shades, primarily in the recesses. Finally, cover the tracks with the same mixture of light, cracked mud, and darker shades of enamels. I added a few more details for completeness – spare wheels, cables, and armour made from spare tracks, and I was done.

This was truly an enjoyable project. As they say, classics are timeless and always in style, and the StuG is simply a golden classic. My next StuG will be an Ausf. B in dunkelgrau, and it's already in progress, so stay tuned!





WAFFLE

WARRIOR

Waffle



Scale Scotland - Made by modellers for modellers!

in association with
AFV
modeller modeller
+ **AK**
INTERACTIVE

24
Scale
SCOTLAND
THE CAPITAL MODEL SHOW

Special Guests
will be announced
closer to the show



07 09 24

MURRAYFIELD STADIUM
EDINBURGH

Model Demonstrations, Quality Trade Stands, Club Displays,
Competition, Hot & Cold Food, FREE Parking,
FREE Model for Kids on entry.

Entry £10 (Under 16s FREE)

www.scalescotland.co.uk • f

TREX MONSTER SALE

ALL REMAINING STOCK

HALF PRICE!



1:48
1:35
1:16

HURRY! LIMITED STOCK SELLING FAST!

www.afvmodeller.com

SUBSCRIBE NOW!

AFV
modeller

SUBSCRIBE TO THE PRINTED VERSIONS NOW
AND NEVER MISS AN ISSUE, WE POST WORLDWIDE!

SUBSCRIBE TO OUR DIGITAL VERSIONS FOR AS LITTLE AS £4 PER ISSUE,
IMMEDIATE ACCESS ON YOUR DIGITAL DEVICE AT...



 pocketmags.com

FREE sample issue
available to download

NOW!

Developed in the early 1960s and entering service in the 1963 the Type 62 tank was an ingenious miniaturisation of the T59, the Chinese version of the T54. China had realised that as well as producing a main battle tank she had further requirements in the form of a smaller mountain tank for the narrow hilly paths of Southern China in the form of the Type 62 and a larger version of the amphibious PT76 in the form of the Type 63. Both tanks were to see reasonable export success with the Type 62 seeing service with Sudan, Cambodia, Bangladesh, Laos and Tanzania too, it is currently seeing use in the evolving conflict between the Sudanese military and the Rapid Reaction Force, in a vicious civil war that has seen all manner of Chinese, Russian, Iranian vehicles see action and destruction. The Type 62 is armed with an 85mm gun, and runs on narrow wheels and tracks. It's major test with the Chinese military came in the border War with Vietnam in 1979 when it formed an armoured edge of the People's Liberation forces as they pushed over the Vietnamese frontier.

The Sino Vietnamese war was not so much a war as a punitive invasion which came about due to a number of reasons. The main one being in the form of the then Chinese leader Deng Xiaoping. Deng had deftly outmanoeuvred Mao's chosen successor to get his hands on the reins of power. Deng was determined to open relations with the west and launch political and economic reforms. His real areas of concern was to open China to foreign economic investment and technology.

The perceived threat from the Soviet Union and its expanding influence in neighbouring Asian states had also to be countered. A major bugbear for Deng was the rising power of the now unified Vietnamese state. Deng saw the Vietnamese treaty of Friendship with the Soviet Union as a treacherous act from an ungrateful junior partner (China had provided the North Vietnamese with large amounts of military aid during the Vietnam war, including Jet fighters, tanks, artillery and all manner of infantry weapons).



Modelled by Zack Sex



座太遠的橋

A Bridge Too Far?..

A Chinese Type 62 tank may be about to see it's final action in the Sino-Vietnamese Border War

The Vietnamese invasion of Pol Pot's Kampuchea in 1978 (due to the Khmer Rouge's murderous cross border raids and the Ba Chúc massacre of 3,000 civilians in former South Vietnam) was the final act of betrayal for Deng. The so called Democratic Kampuchea had been a solid and sole military ally and dependent in South East Asia, its brutality towards it's own people and neighbouring Vietnam meant little to Deng.

The PLA (People's Liberation Army) was instructed by Deng's politburo to launch a five pronged invasion of North Vietnam, this series of attacks was designed to force Vietnam to remove it's army now occupying Kampuchea. This punitive invasion of sections of the North Vietnamese highlands were discussed with the U.S. government when Deng told then president Jimmy Carter in Washington in January 1979 that "the little child is getting naughty, it's time he gets spanked".

Deng had a personal animosity for the Vietnamese who he saw as ungrateful for Chinese assistance in the

American war and as the Asian equivalent of the Soviet's Cuba in Aisa. This border war would also show Washington that China could be a trusted regional allie in pushing back Soviet expansion in South East Asia, the very reason the U.S. had unsuccessfully intervned in Vietnam so recently and for so many years. So Communist China would attack Communist Vietnam, with the tacit approval of the United states. The PLA's incursions into Northern Vietnam would take a few weeks, the Vietnamese would be given a bloody nose and would be forced to withdraw it's forces from Kampuchea to defend Hanoi, followed by a victorious Chinese withdrawal, or so Deng thought...

On the 17th of February 100,000 members of the PLA along with artillery and armour launched a series of attacks on the border with Vietnam.

The main thrusts were towards the provincial capitals of Lang Son, Cao Bang and Lao Cai which the PLA took during the month long invasion. The PLA invasion force was met with stiff resistance by well armed Milita troops and border guards, the Vietnamese also made good use of their famous jungle warfare abilities along tunnels and bunkers. In response PLA units resorted to human wave attacks much as had done in Korea to overwhelm Vietnamese positions and slowly but steadily take territory at an extremely bloody price .



The PLA had not fought a major campaign since the Korean war and its supply, weapons and logistics were found seriously lacking with troops going without food and water as the rough mountainous terrain and lack of roads forced the Chinese to rely on pack horses and mules. The Vietnamese use of guerilla warfare tactics, booby traps and tunnels made the fighting even for the mass PLA formations extremely difficult. The Type 62 tanks were easily destroyed by Vietnamese RPGs, and there are a lot of shots available of Vietnamese troops standing beside destroyed and damaged Type 62 tanks. The Vietnamese also lost equipment including at least one Polish built T34 85 seen by the author in Beijing.

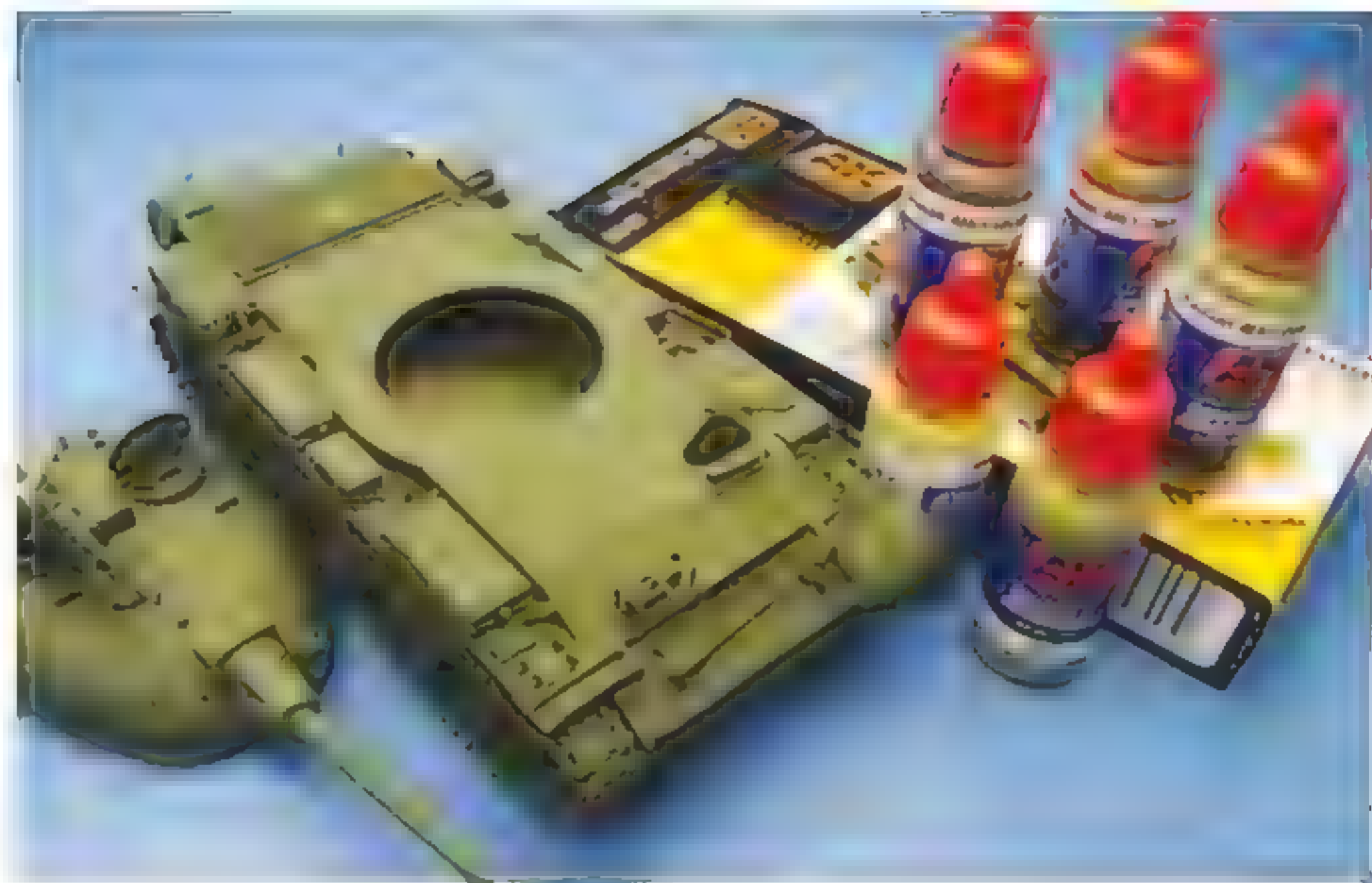
By March the 5th the PLA announced it was ready to withdraw and did so inflicting a scorched earth policy on all buildings and facilities in the territory that they had taken, destroying power lines, blowing bridges and stealing all the peasant's live stock in the region. The conflict saw thousands of casualties on both sides. Did Deng's invasion break the will of the Vietnamese? Not at all, if anything it confirmed their suspension of their larger imperial neighbour and its numerous invasions and conquests of the past. It was also a clear indication that while nominally Socialist, fraternal allies in great socialist revolution these pair were not, both countries were just as nationalistic as any other in the region,

very far from being anyone's dominoes as the U.S. had originally feared with the domino theory of the 1950s.

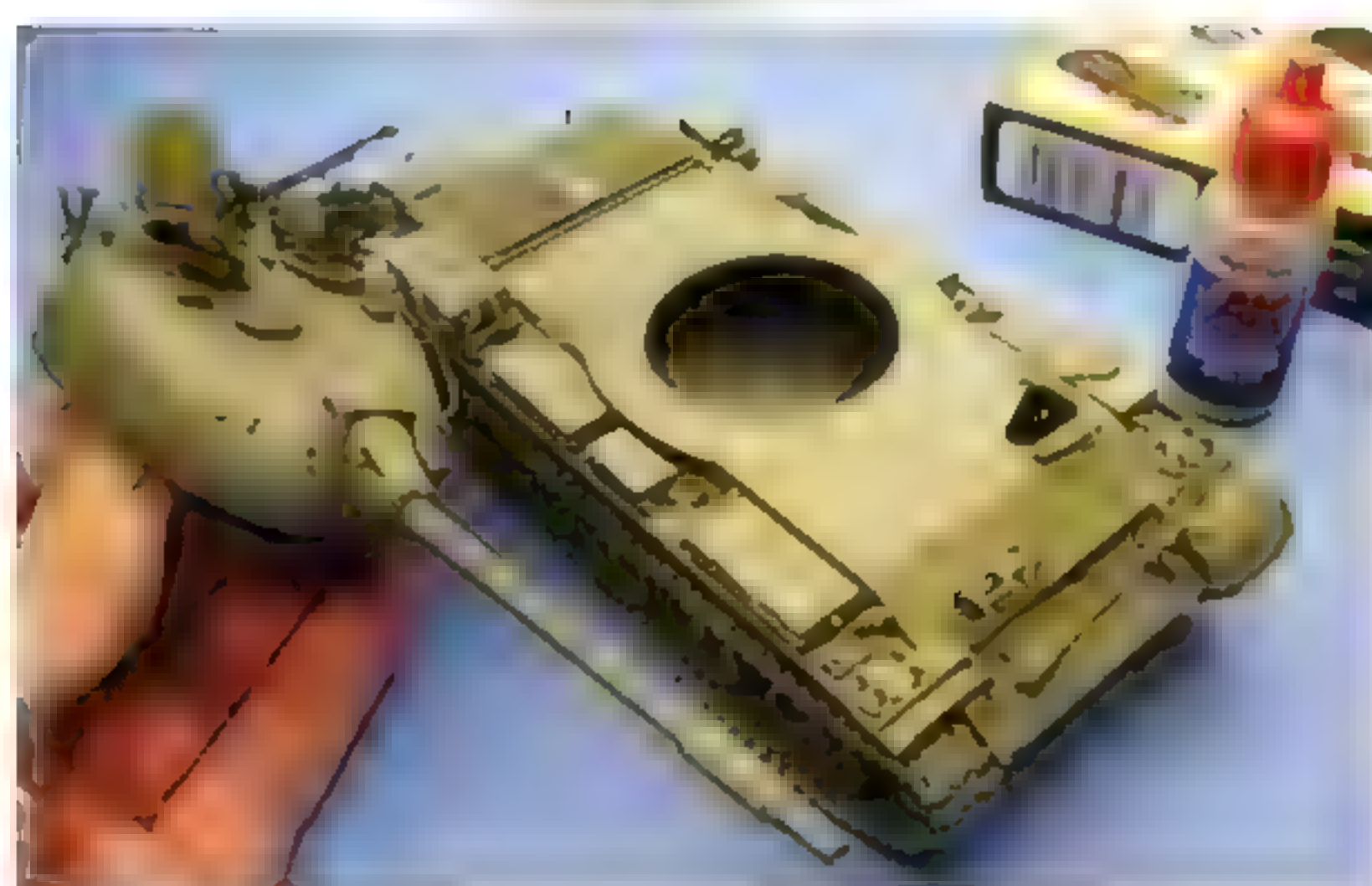
This Trumpeter T62 kit has been out a while and is a fairly straightforward build, anyone who has built a T55 or T69 kit will be struck by how familiar it is in layout, do be extremely careful about the kit instructions as they advise you to mount the right hand side tracks on the kit in the wrong direction. On my model I altered a number of details the main one being the main gun mantlet which in the kit is represented by a unconvincing attempt at a fabric cover. I replaced this with a chopped down and rebuilt metal mantlet for an old Mig productions casting. Next I added the extra details displayed on Chinese Type 62s involved in the border conflict. In photos from the period I noticed extra fuel tanks strapped or wired to the rear deck on the left and ammunition boxes wired to the right.

A number of these tanks were missing one or both mud guards and rear oil tanks. To the exhaust outlet I added a foil cover which is more in scale than the kit offering. I then added a resin tarp to the rear of the turret based on references, brass handles to the turret and an etch cover over the gunner's sight made from scrap brass (missing from the kit). After this simple build I was ready to paint.





I first sprayed the entire kit in Humbrol acrylic Green, this is a strong quick drying paint which will not lift no matter how many spirt based washes you apply over it. Over this I sprayed light coats AK Interactive Russian 480 to add extra depth to my green.



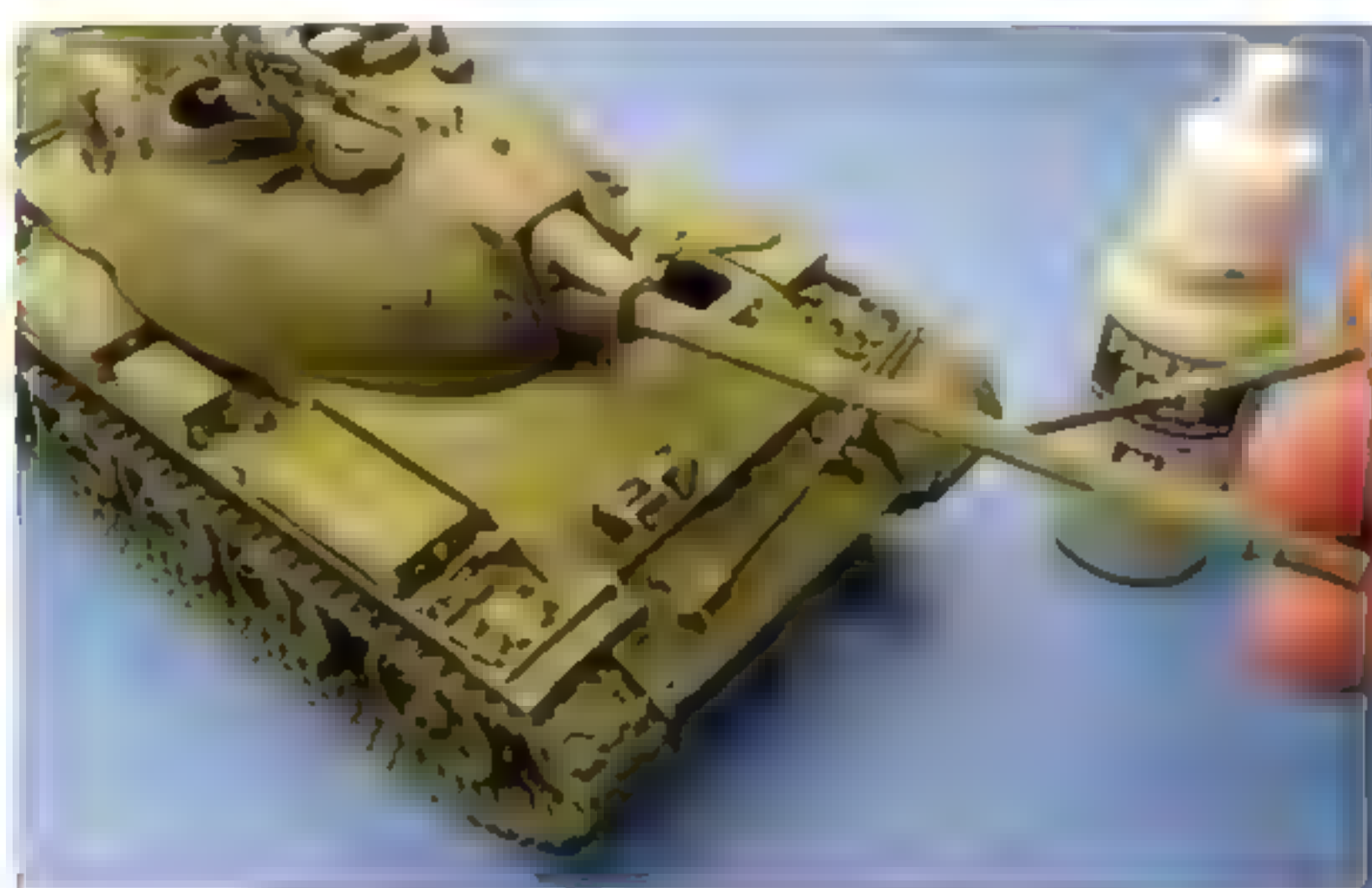
Over this I applied a coat of 480 Highlight in certain areas.



After these over-sprays of AK interactive greens I now applied artist's oil paints in the form of sap green and yellow green by Daler-Rowney. This adds a luster to the tank surfaces which is rubbed back with cloth to create a natural sheen on curved and cylindrical surfaces.



The effect of the oil colour can be softened if needed with clean thinners.



Highlights were added using Panzer Aces pale olive on surface areas such as fuel tanks, railings etc.



I then applied Wilder road dust diluted with spirits over flat areas of the tank in spots where this would gather.



At the same time for extra contrast I added black oil paints washes or filters to detail areas such as wheel hubs, hinges and around recessed areas that would collect such dirt and stains.



On the exhaust foil cover I added a red and orange chalk pastel mix on top of white spirits to obtain a nicely rusted area.



Washes made with pure black oil paint enhance finer details.



On the turret rear I carefully painted the tarpaulin a pale biscuit fabric colour in keeping with my reference shots. Finally on the tank's front I speckle-sprayed with an old brush around the mud guards and glacis plate a pale muddy mix watered down with thinners. A lot of this would later be altered to fit in with the colours and tones of the old French bridge that I would ultimately add to create a stage of sorts for the mini mountain tank.

I had a chat with Paul Kunkels, he suggested crew-up the Type 62 with a fairly impressive bunch of resin tank riders from a Chinese company called Yufan or YUFANWANWU TAOBAO.COM they produce a ton of interesting figures including some rather alluring tank ladies (don't ask me...) anyway the set we needed is called "China PLA back on the Vietnam war" and consist of a bunch of very expressive figures that are very faithful to the actual Chinese tank riders who rode into battle on their Type 62s during the invasion in '79.

I took my time getting reference shots and painting these figures, with an eye to creating an overall effect rather than trying to paint them to a level that would wear out my enthusiasm and end with

the whole thing up on the unfinished shelf of doom. In the end after painting with a mix of acrylics, enamels and pigments, I added some work with water-colour pencils to get a finish that I felt was overall in keeping with the composition I wanted to try and achieve.

I added some leaves and grass as seen in the reference photos particularly around the PLA troop's hats and called it a day on the figures and vehicle, a simple base was all that was now required or so I thought. After going back through the few reference shots I possessed I had an idea...

One shot I had showed PLA Type 62s crossing in numbers over a pontoon bridge, this got me thinking and I decided to place the Type 62 going over an old French colonial bridge with lots of bamboo and foliage on either sides of it and perhaps a Vietnamese regional trooper with an RPG 7 ready to ambush the Chinese invaders, as so many did. The bridge was a simple affair constructed with styrofoam packaging material, mounting card and plaster. Over this construction I added garden clay and grit mixed with PVA and finally various coats of pigment washes along with railway modelling grass. I glued on fake flowers which were cut to fit and more importantly, bamboo shoots.





Lots of mud washes with an emphasis of contrasting pigments from dark to light gave the whole vignette (or diorama?) a more interesting vibe and I was happy that it added to the tank and figures rather than take from it.

I intend to build more of these bases as mini stages for my models as they add a sense of drama and realism.
'Till next time; stay safe and happy modelling.

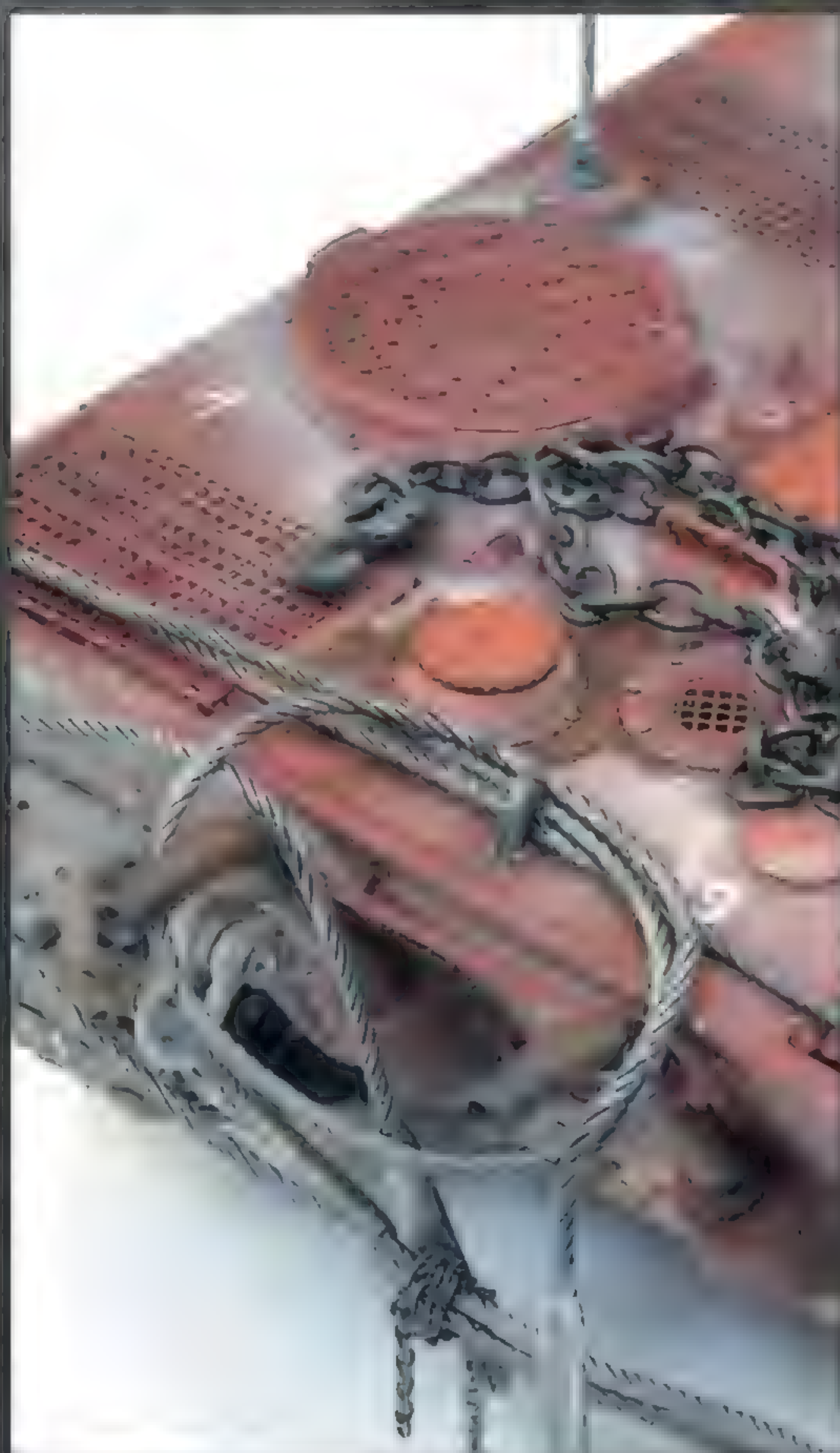


Lukasz Orczyc-Musialek feels the Flakpanzer
'Coelian' may well be the perfect 'Paper Panzer'

Coelian



1:35



Takom's Flakpanzer Panther "Coelian"

Armoured Fighting Vehicle is an interesting design concept as I like the 'E-series' German designs very much so a "must build" model for me. Years ago there was only one option using a resin turret and I was far from convinced; I had big doubts about the quality of the resin and the amount of detail this kit offered. Fortunately, Takom used their Panther series to offer a very nice Coelian kit so I had no doubt that they could take my money. This kit was released in 2018, and so far it is the best model of this "paper panzer" on the market. During the war there was only a wooden mockup so this one can be placed next to the rest of the armour in the 'E' family and other strange Nazi projects.

The kit has the hull of a Panther and options to add the anti-aircraft turret with a 20mm Flakvierling MG 151/20 or a Coelian w/37mm Flakzwillig 341 turret. This is the main difference between their Panther and Coelian kits. Most of the sprues are identical to the Panther kits so there are no surprises about the quality of the parts. After looking at the sprues I'd say that Takom did a very good job and I'd recommend their Panther kits. To upgrade my model I used resin Quick Tracks and metal gun barrels from RB model. They are bigger than the original parts but I decided to use them and make the armament more powerful so it turned into true paper panzer with free artistic interpretation. As I compared the original gun parts I felt the model looks far better with this extra punch. There is also a metal antenna mast from Master Model and towing cables from Eureka XXL.

My intention was to build the vehicle without any engineering equipment or other additional components. I also left out rear stowage boxes, fenders and everything that seemed redundant to me. The Coelian was supposed to look like it was released straight

from the factory into combat due to high demand, exactly as the T-34 was released in Stalingrad sometimes without paint and often without seats or other equipment for the crew.

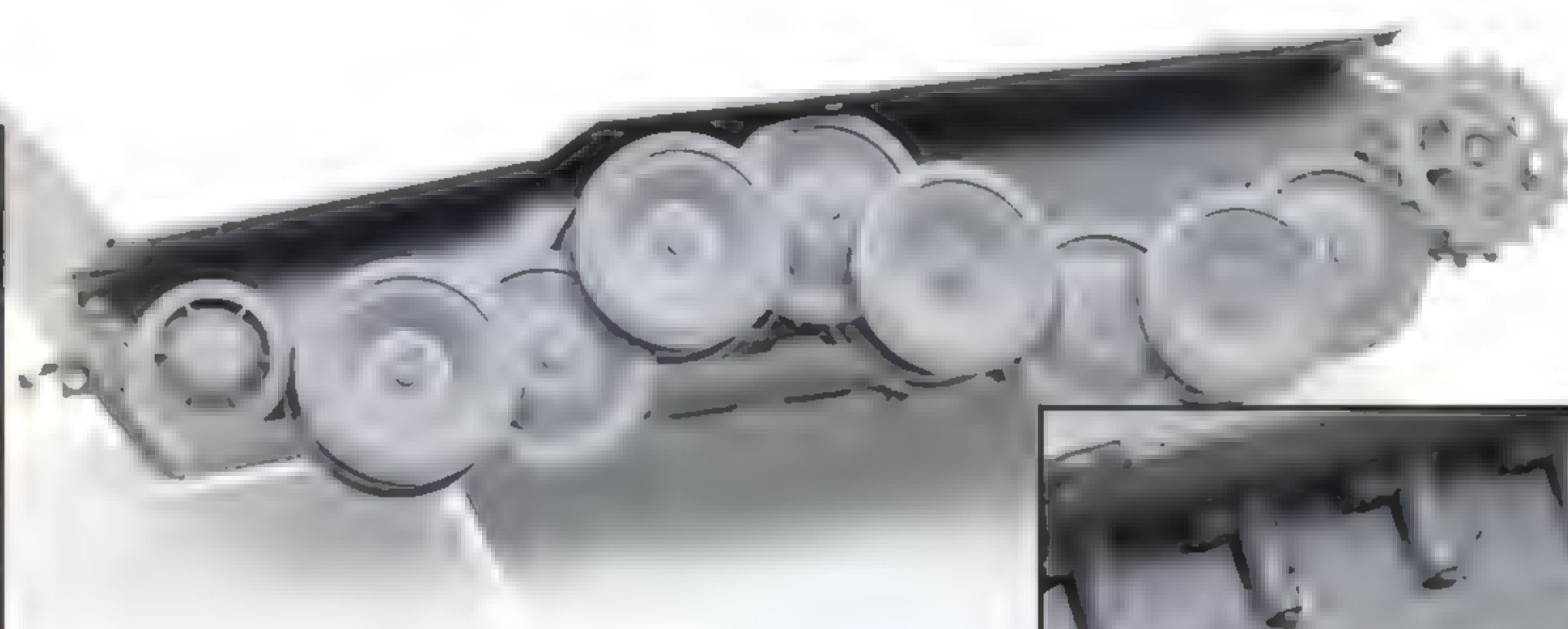
I wanted it to be painted only in red oxide but then I came to the conclusion that it would look better with sand camo. As you have probably already noticed, this sandy dunkelgelb shade is properly treated so that it does not look perfectly factory applied.

An important element on this model that I wanted to implement was the use of contrasts on every possible surface and using individual elements of the model. Not only by painting, but also by weathering and using different colours, I wanted to build an interesting looking model. Whether I succeeded or not is left to you to judge!

A more in-depth study of the model is available on my Youtube channel COLDEMONSpl.



Making movable suspension is very easy. Just drill holes in the ends of the trailing arms and glue a length of soft metal wire or rod to run into the lower hull.



Here you can see how the moving arms work. The wire is bent to keep the suspension arm in place but allow it to move up and down at the same time.



On my model there will be no engineering equipment and stowage boxes at the back, so all mounting holes must be filled. I find the easiest way is to paste a toothpick with a drop of CA glue, push into the hole and cut it off. finish with a touch of liquid filler if needed.

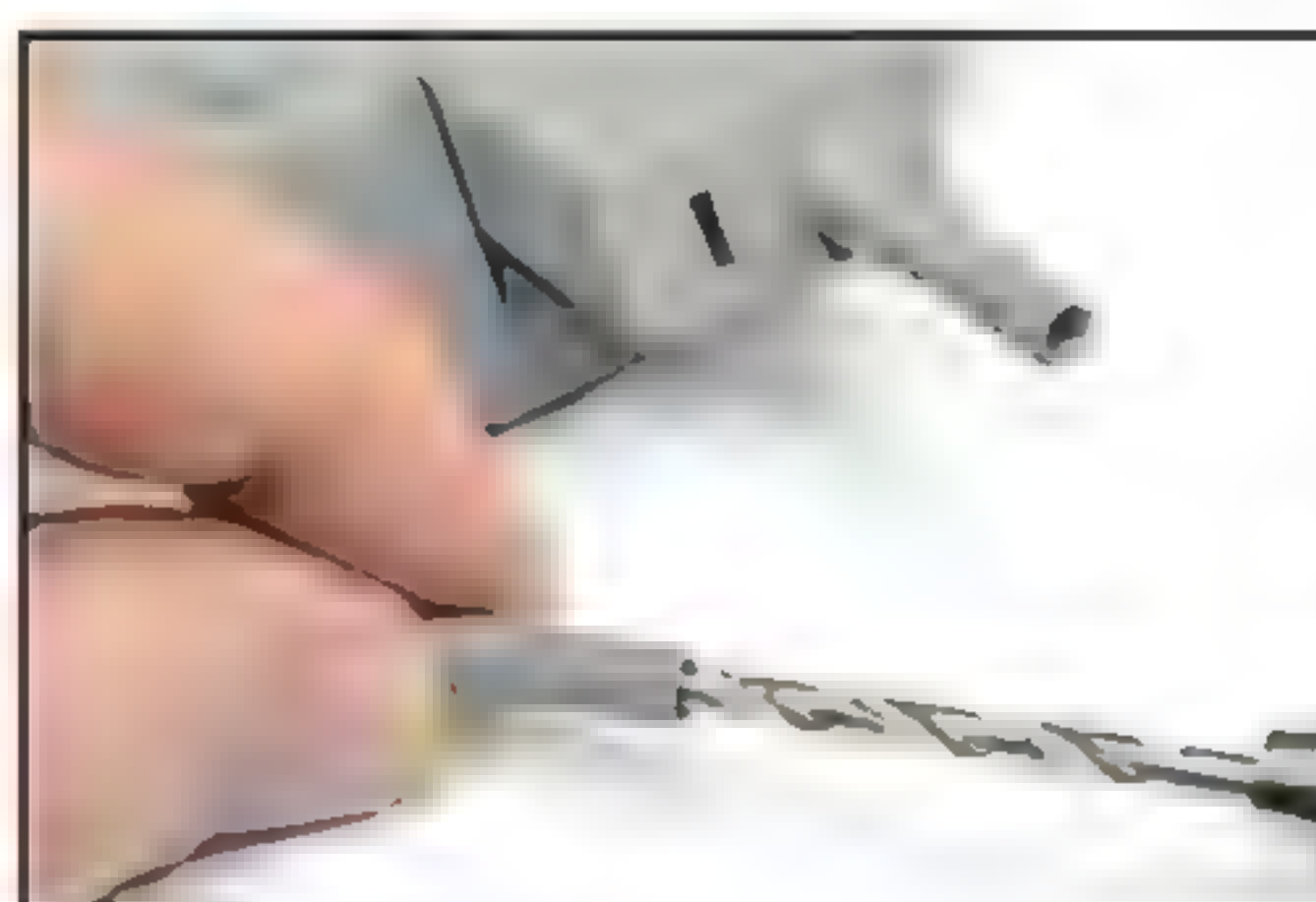


Before joining the upper and lower hull I assembled most of the elements on the upper part.

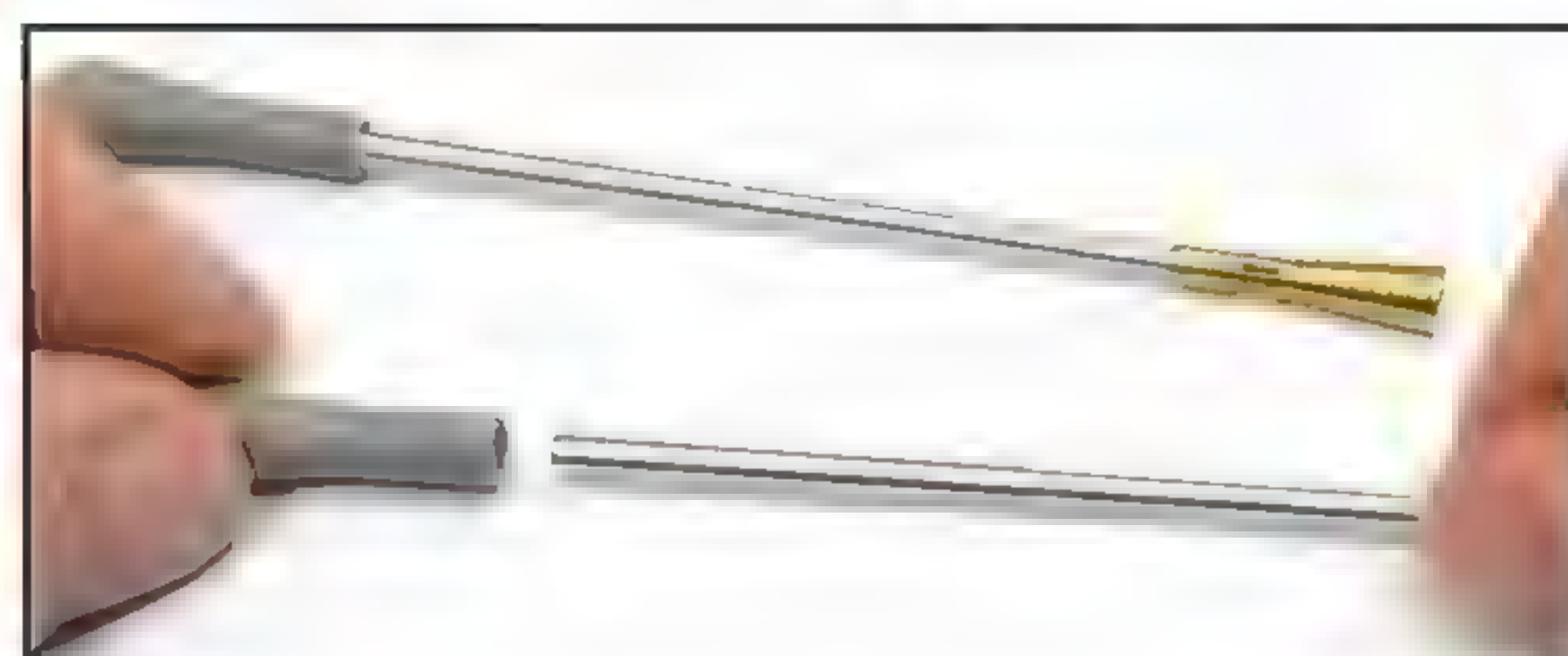
I prefer to paint wheels separate to make life easier.

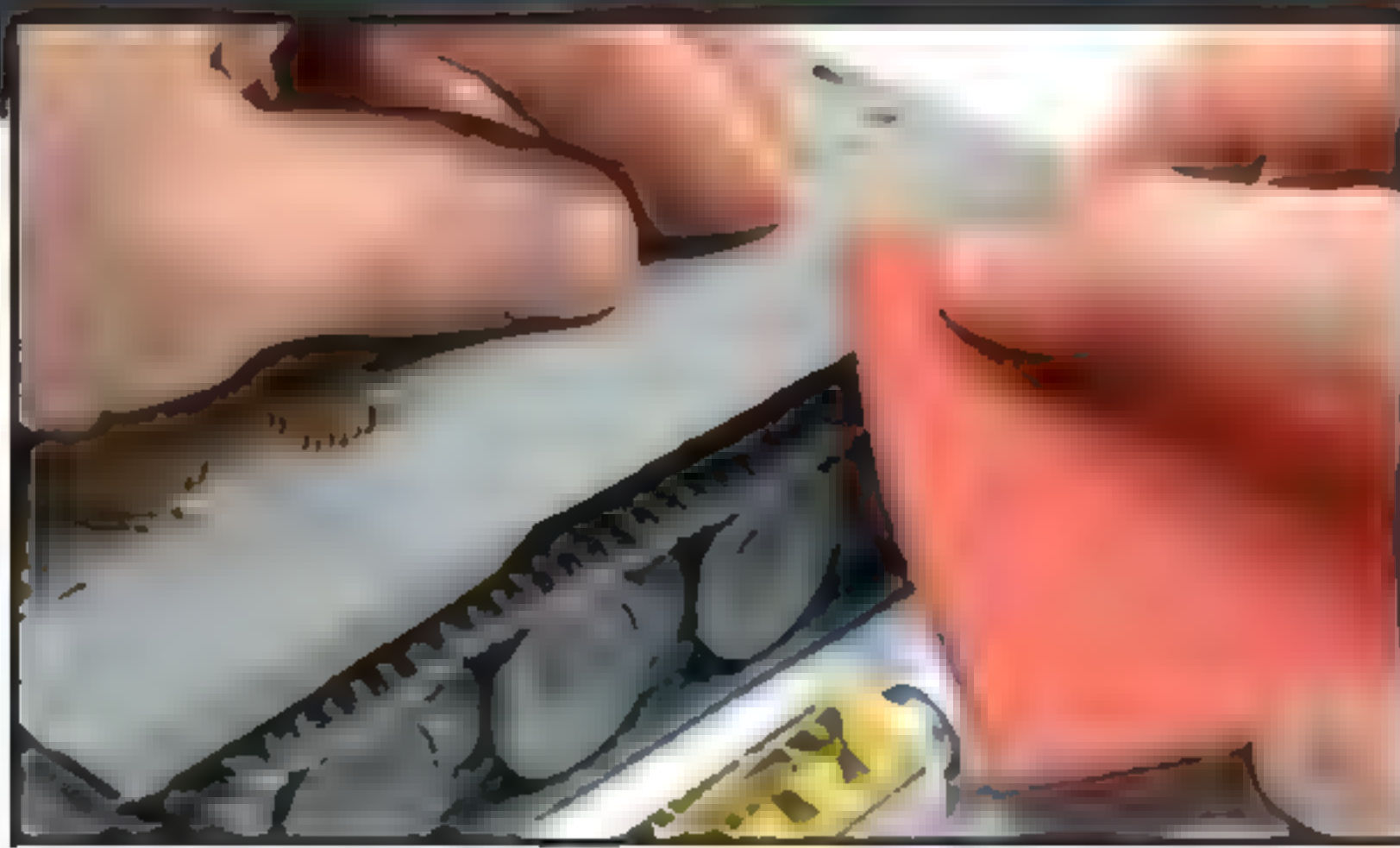


The manufacturer provided a set of PE metal mesh for the rear deck. With the handle of the tweezers, you can make indentations to them, and with a sharp tool some damage.

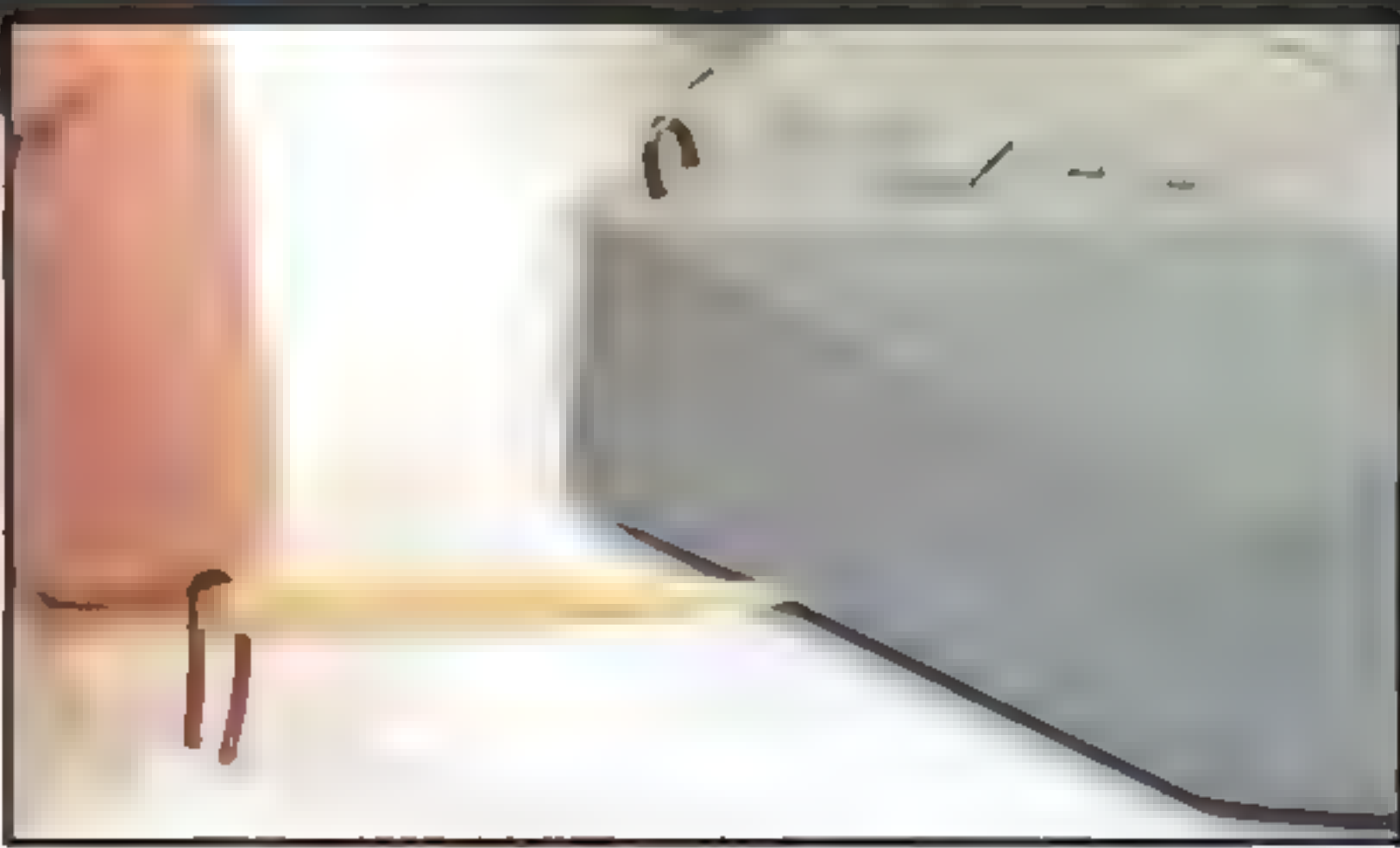


I decided to change the size of the vehicle's armament by fitting metal barrels from the RB Model. It required some drilling.

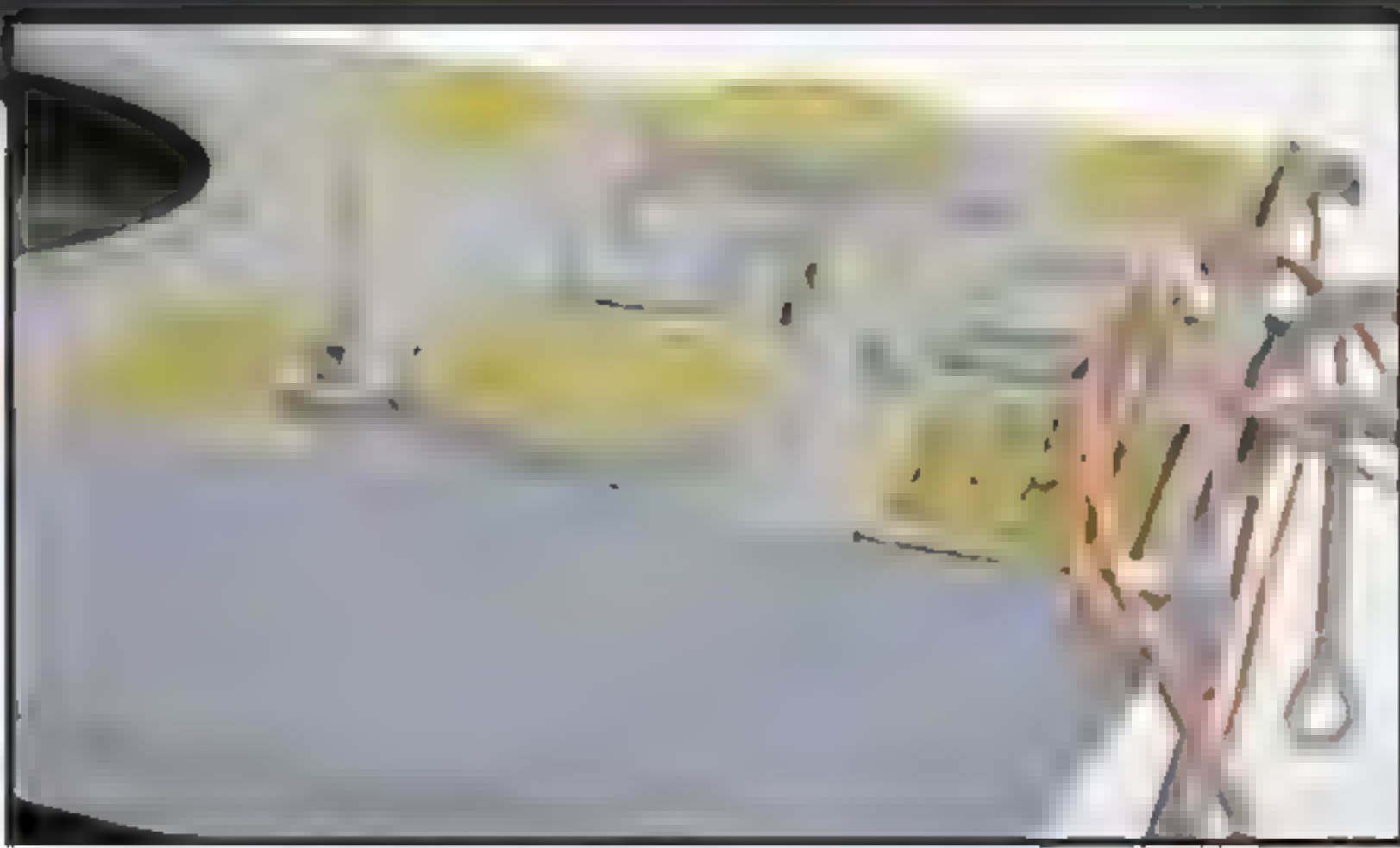




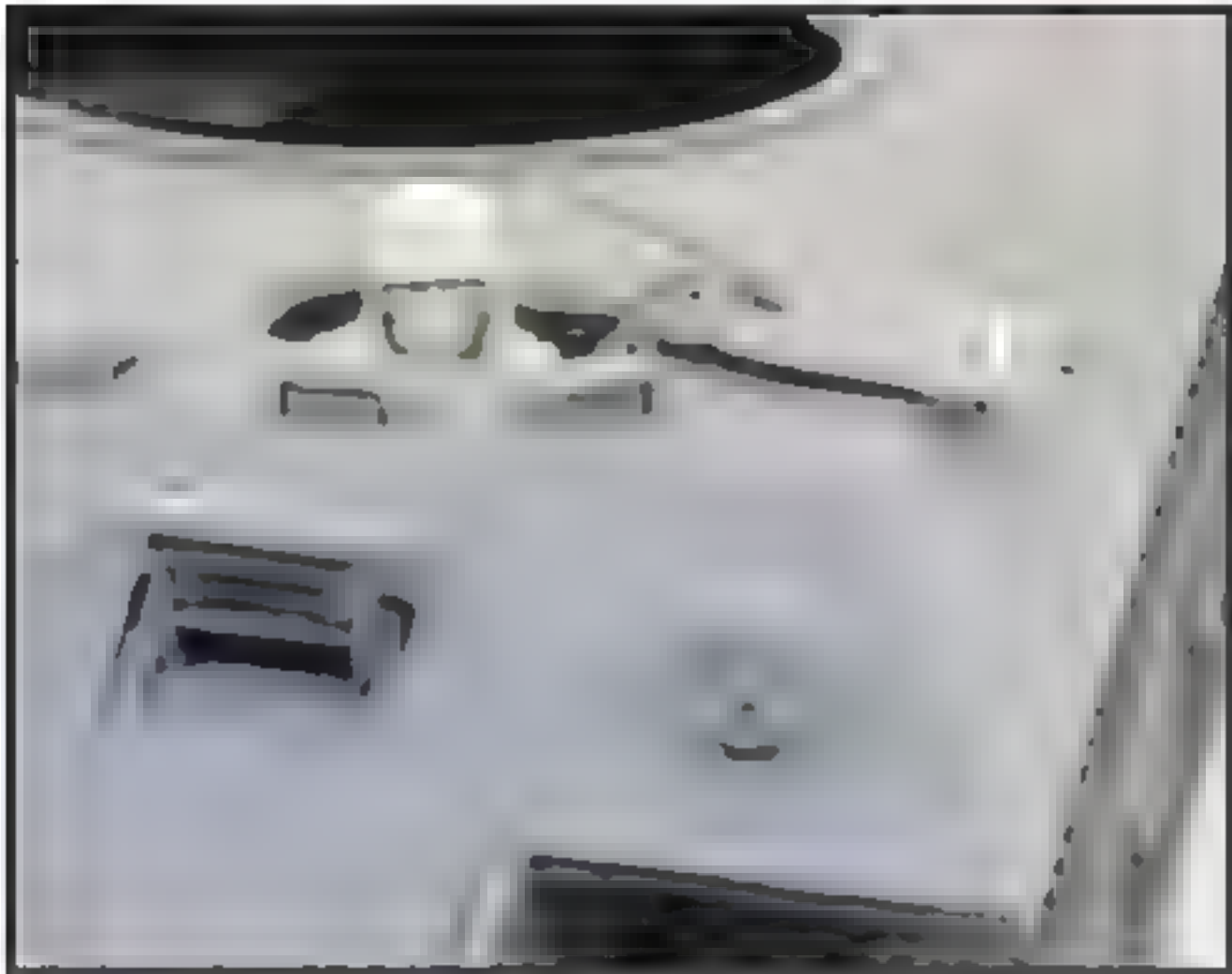
I slightly improved the surface of the rolled armour plates with acrylic putty and sanding.



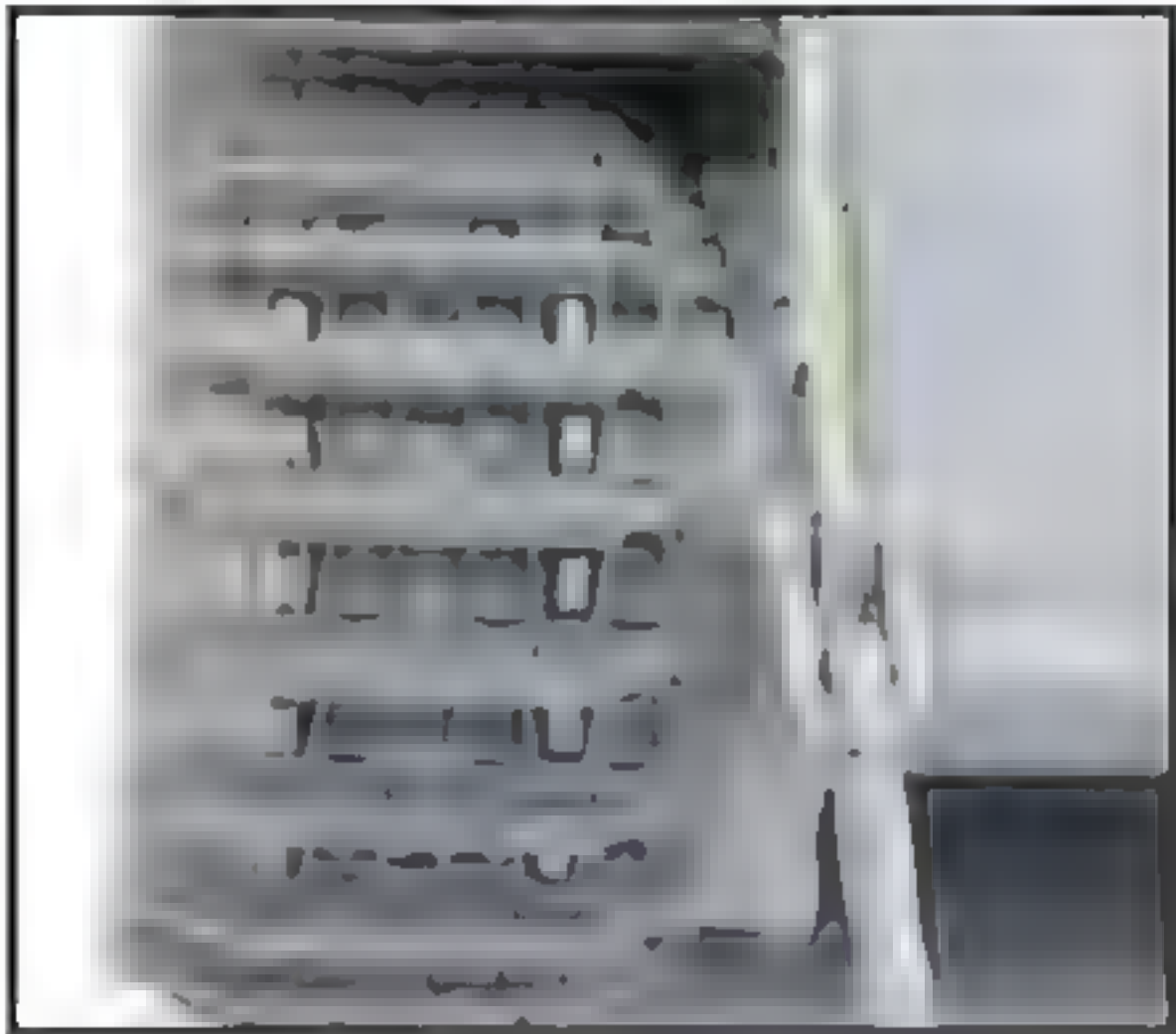
Here and there I changed a few elements to metal ones made of wire.



The rear detail of the vehicle was enriched with metal tow ropes from Eureka XXL and a metal antenna from Master Model.



I also matched the figure of the driver and commander to the vehicle. These are only half of the Paper Panzer Productions set that is no longer available unfortunately.



Kit tracks have been exchanged for the excellent 'Quick Tracks' individual resin links.



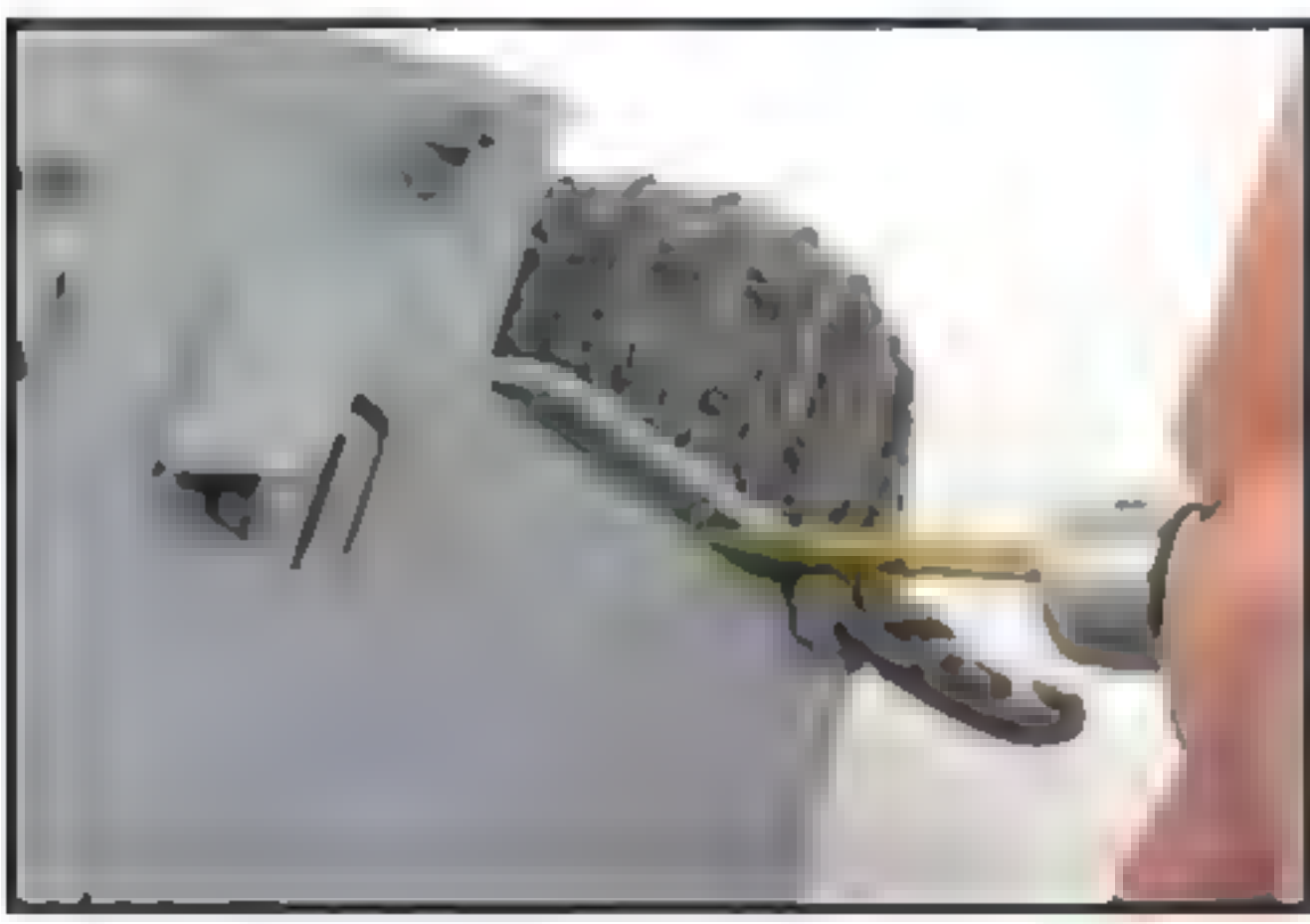
I glued a few pieces of plastic to the turret's base to slightly raise it above the hull level.



On the turret I added a few plastic elements to add interest to large empty surfaces.



The side profile shows what a sleek looking AFV this would have been. Only a mocked-up wooden turret mounted to a Panther hull was discovered by the Allies at the Rheinmetall facility.



I completed the missing welds by making them with Green Stuff putty and forming them with a suitable tool.



The Coelian original design included twin 3.7cm guns, these larger calibre guns with flash suppressors certainly give a more purposeful look; this kind of freedom makes modelling these subjects great fun!

I took the whole model apart and prepared it for painting by attaching it to wooden sticks and special holders.



A thin layer of grey primer from Mission Models gives a stable uniform finish for the base colours.



Tracks were also covered with a primer and base colour; it was the same colour I use to paint the rubber tyres on the wheels.

MM Red oxide is ideal for showing on the model a typical primer used by the German factories.



The whole model has assembly inscriptions and factory chalk markings, which are from Wilder's dry decals set.

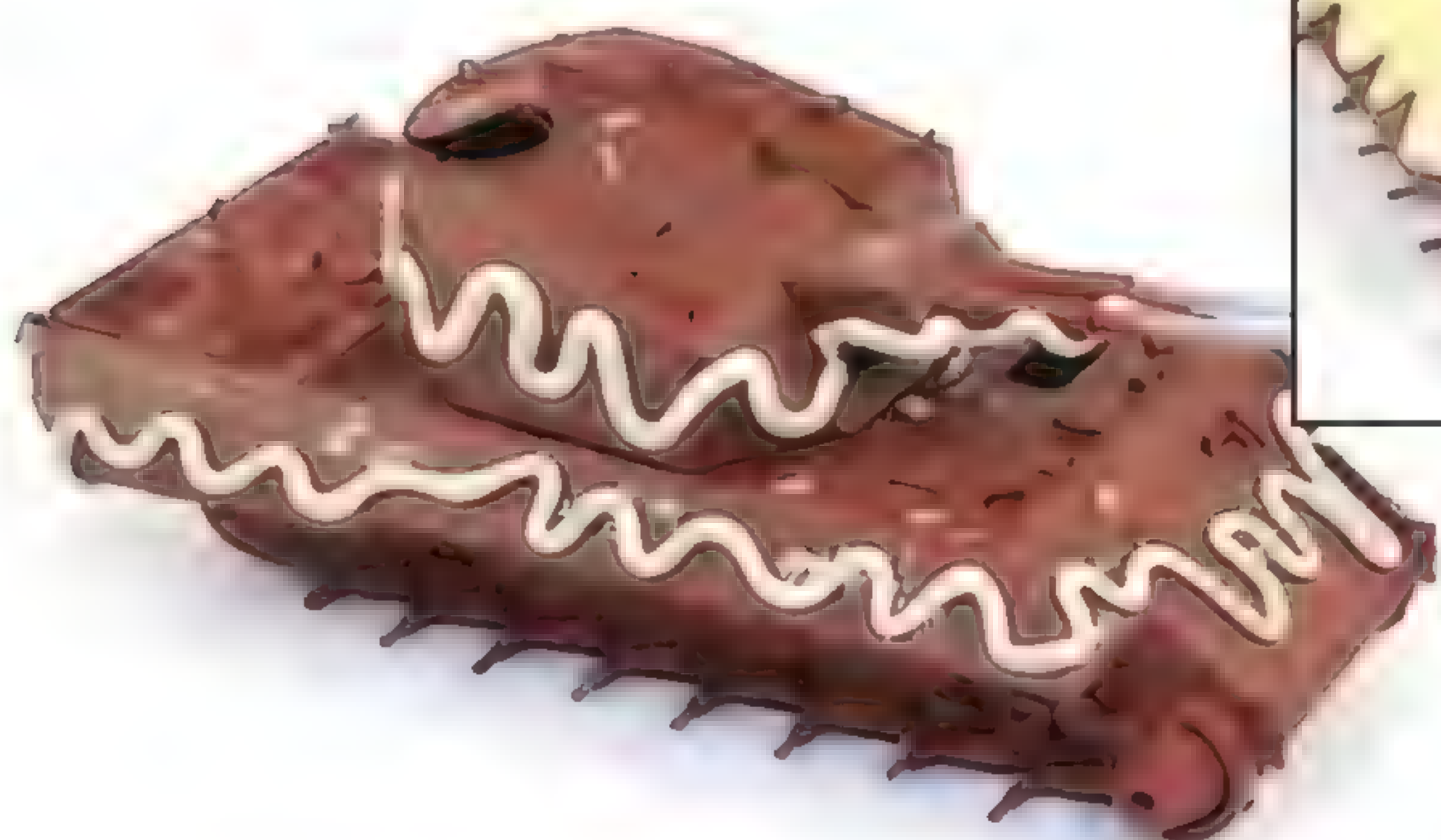
Between the camo colour and the red oxide, I applied Easy Chipping Medium to all the elements, which allows you to make cool looking effects of damaged paint.

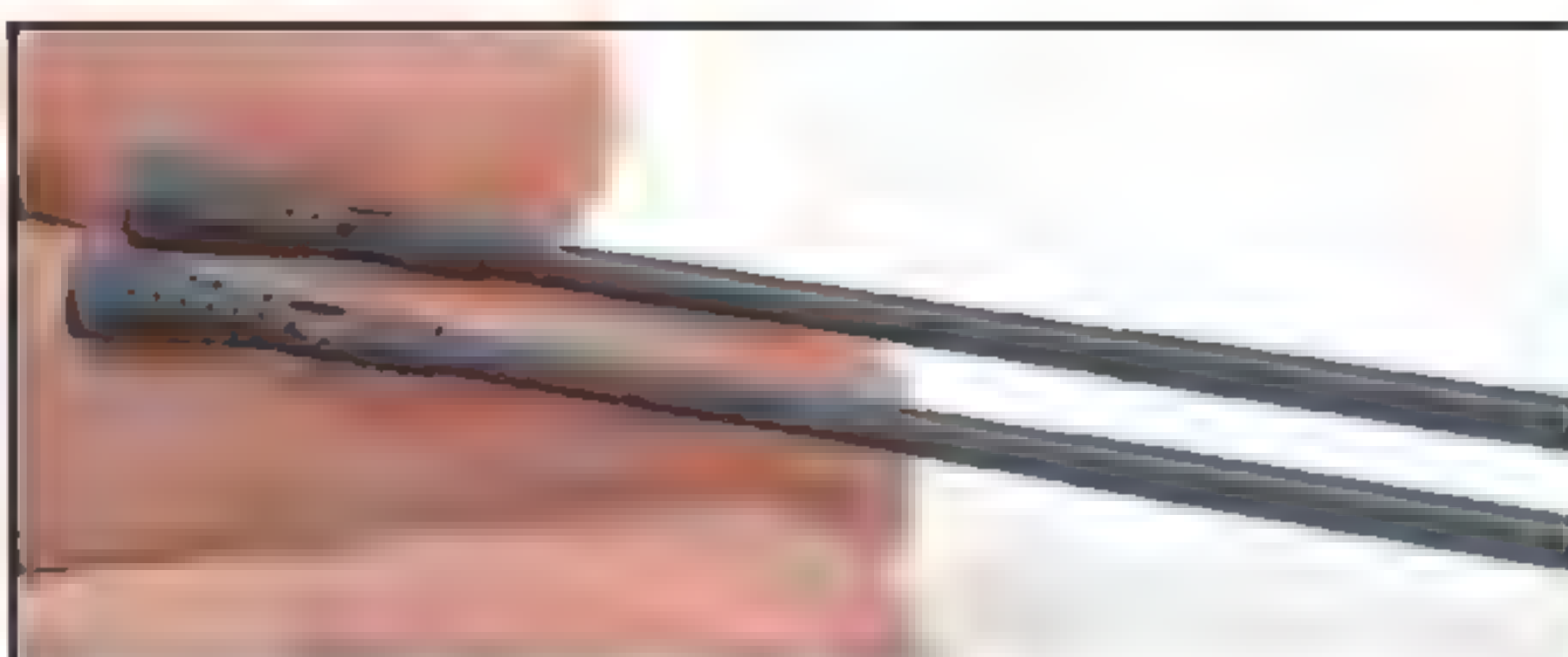
I prepared a blu-tack roll for masking the sand colour, which will mark the edges well and at the same time ensure avoiding mistakes.



After masking the red oxide, I covered the rest of the model with easy chipping medium to do some damage to the paint later.

The sand colour is also from Mission Models and after removing the mask the model looks quite interesting. More fun with the Paper Panzer concept.





Left With a little water and various tools and brushes, I created various damage to the sand paint, not difficult as the MM paint reacted very well to the process.

Above To create another contrast, I painted the barrels in a dark grey shade imitating heat resistant paint.



Right Inner road wheels were given some silver to show where the tracks have polished with contact.

I also added shackles and C hooks which were painted separately for ease



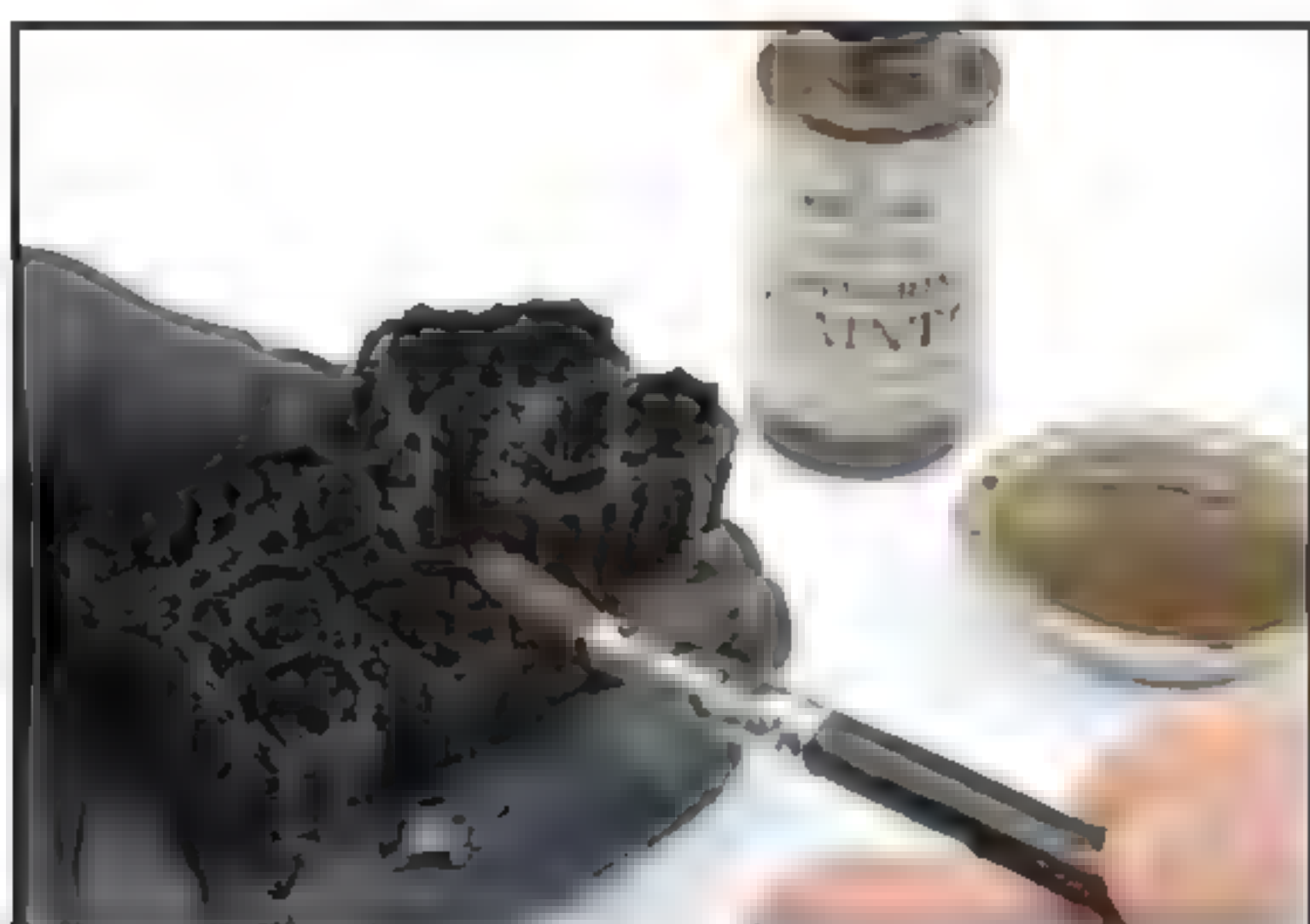
I also painted the tow cables before mounting them on the model. The shackles are glued at the correct which helps when fixing the cables. I only used three colours for this.



Finally, before weathering, I made individual vehicle markings. Double code numbers attract attention as well as unit designations and the vehicle's nickname in white on a green background.



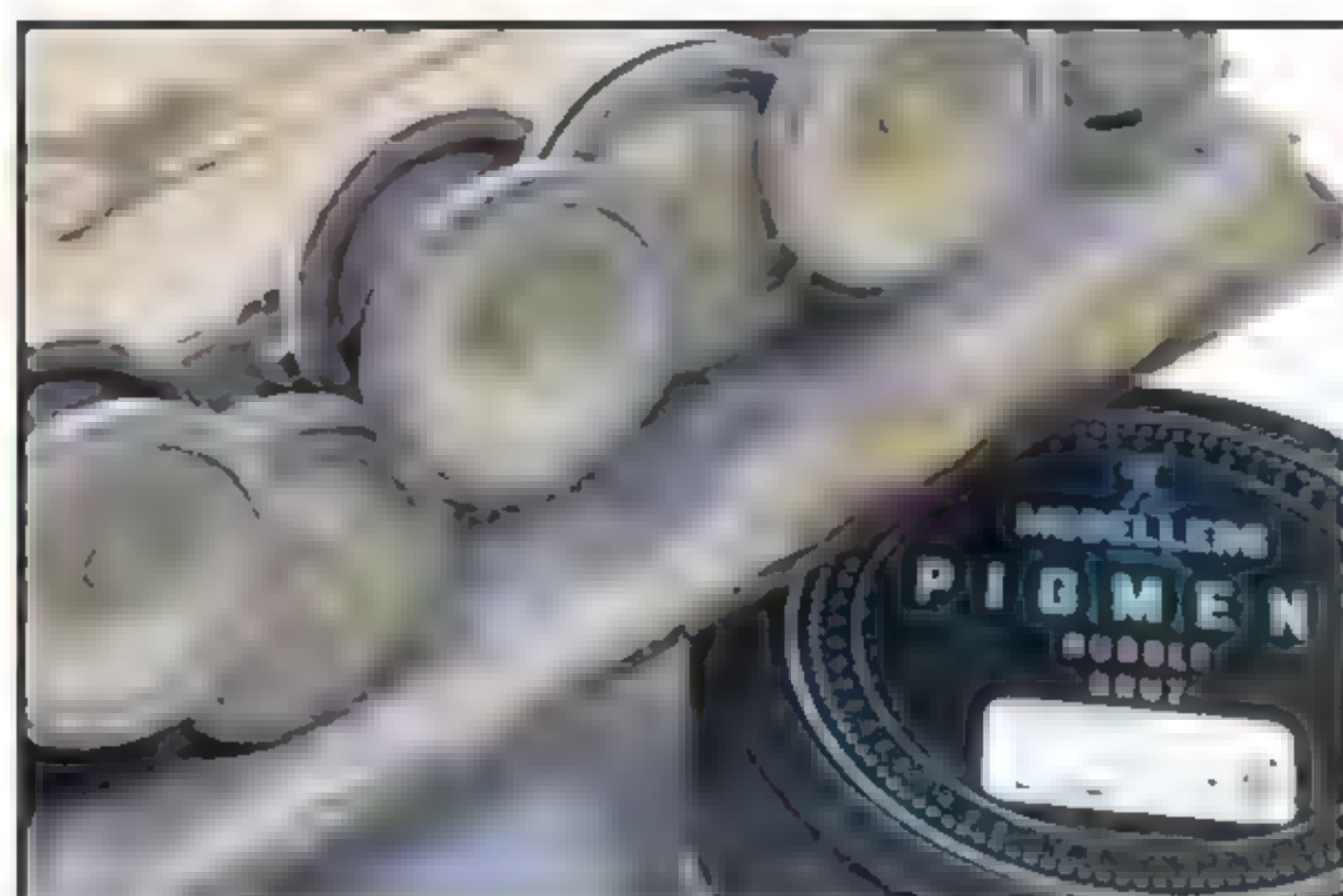
Ready for the fun to continue with the weathering! The harsh contrasts will tone-down with applications of dust and dirt effects.



Tracks I painted weathering paint in asphalt street dirt. One layer was enough to slightly change the colour and create a good base for pigmentation.



In turn, I covered the wheels with the same paint, but I used airbrush for that. This made the colour more like dust.



As I mentioned weathering paint was good for making a primer for pigments. I glued them to the surface of the model using white spirit.



I didn't forget about the least visible places and prepared the weathering there as well.



Traces of operating fluids and splashes of mud and dirty water I painted by diluting the oil paint with a dark wash. The effect is very good.



After installing the wheels, I checked the operation of the mobile landing gear. It works without problems.



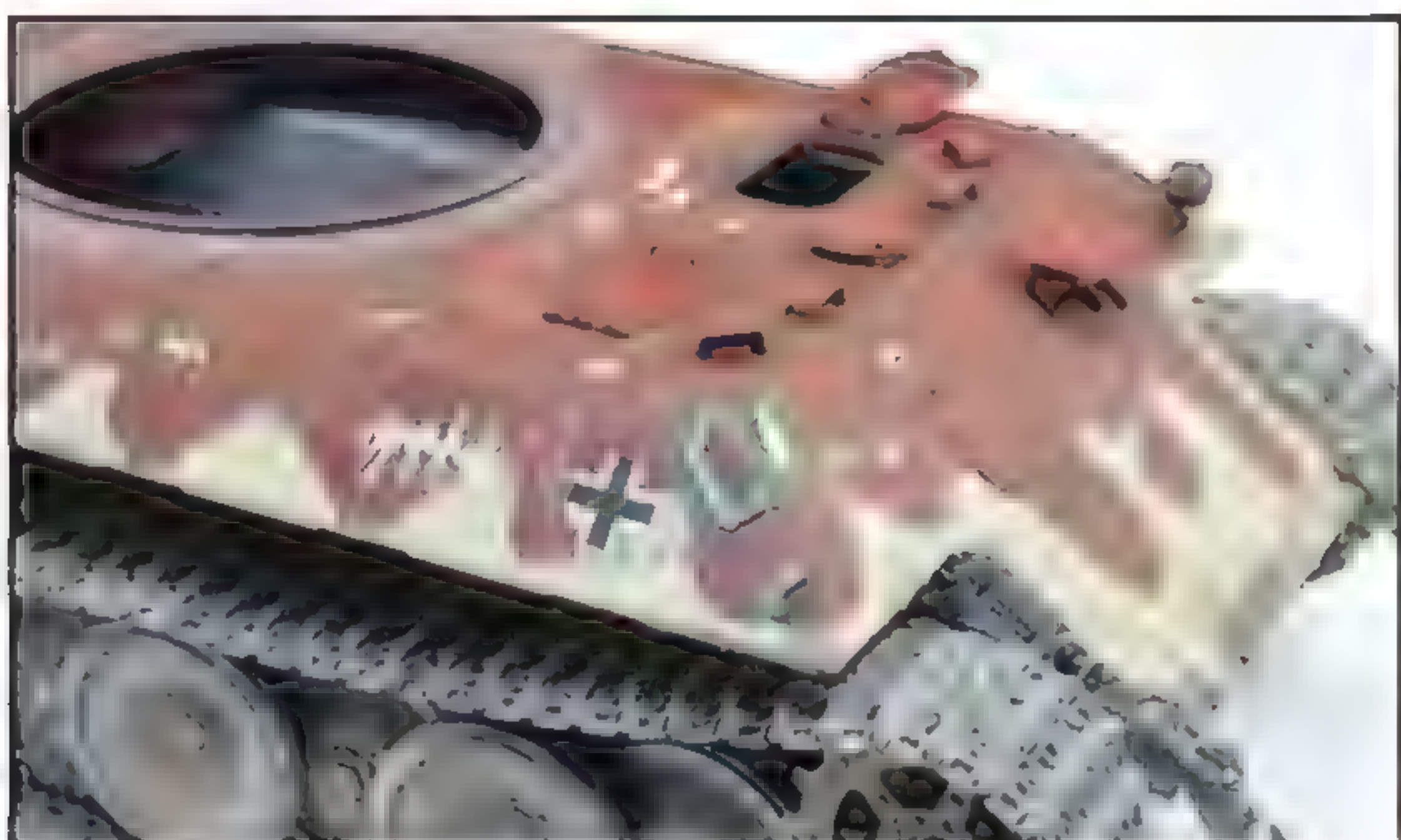
Before the pigments appeared on the tracks, I added a thin layer of light dust. I immediately put powder on it, which stuck to the surface. I polished the edges with a silicone tip and a metallic pigment and a soft pencil.



Some elements were covered with a red filter, which greatly influenced the construction of contrast.

Oil paints are useful to further deepen the contrast and also to paint dirt on the surfaces of the vehicle.





I made additional welds on the frontal armour, which I painted silver, trying to make them look like freshly added elements.



Dust on the model is applied quite heavily to create the effect of dirt caused by dust from demolished buildings. Also with this product I built a contrast, enhancing the visibility of some elements.



Here and there I added some effects in the form of streaks and stains using diluted oil paint.



To diversify the appearance on the rear engine plate, I added a thick chain, painting it in a metallic colour to make it look fairly new. The tow ropes on the rear plate have been pre-formed and are now glued in pre-planned locations. I tied them with a small piece of chain.



FLAKPANZER COELIAN





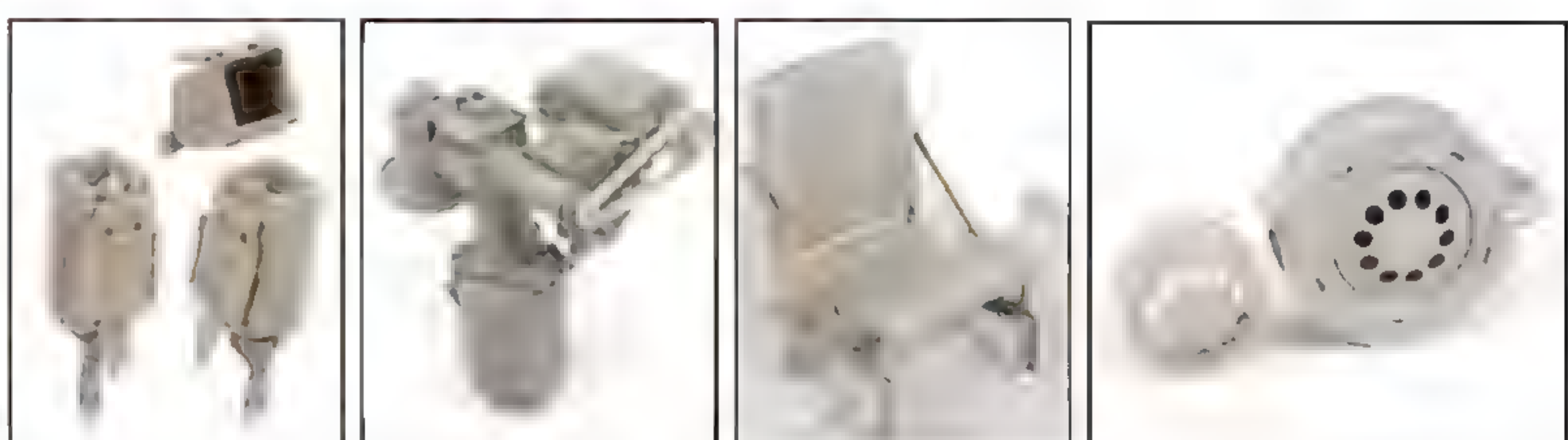
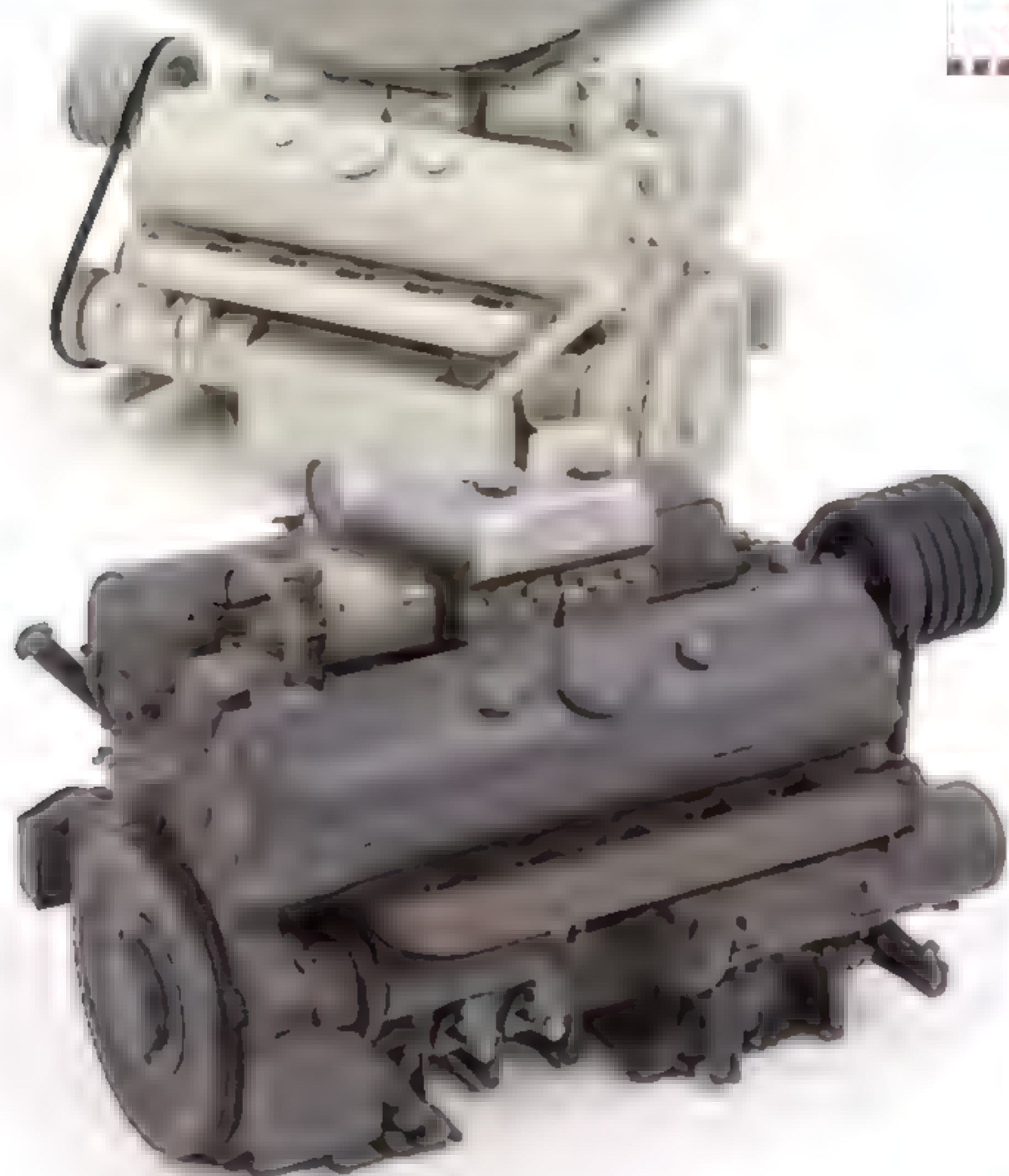
1:16
EXCLUSIVELY FROM
AFV
modeller

**THE ULTIMATE UPGRADES IN DETAIL AND
ACCURACY TO TAKE YOUR LARGE-SCALE
PROJECTS TO THE NEXT LEVEL**

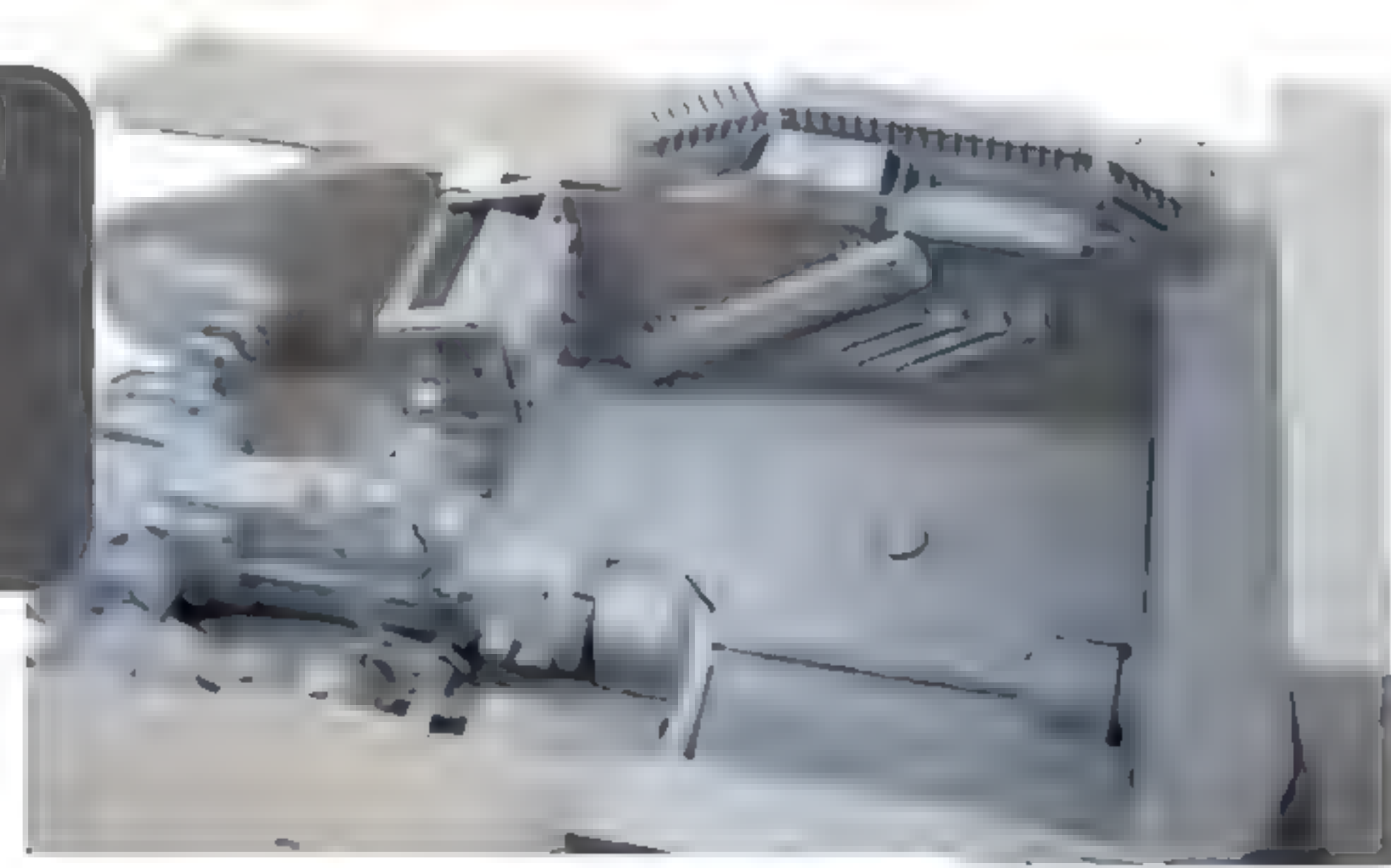
RESEARCHED AND DESIGNED BY DAVID PARKER

TRUMPETER PANZER IV

...OVER 60 SETS AVAILABLE!



TAKOM PANZER I
AUSF. A AND AUSF. B
INTERIORS
AND FULL TURRET
INTERIOR SETS



1:16 PANZER I
D.A.K. CREW



1:16 ARDENNES
SCHWIMMWAGEN CREW

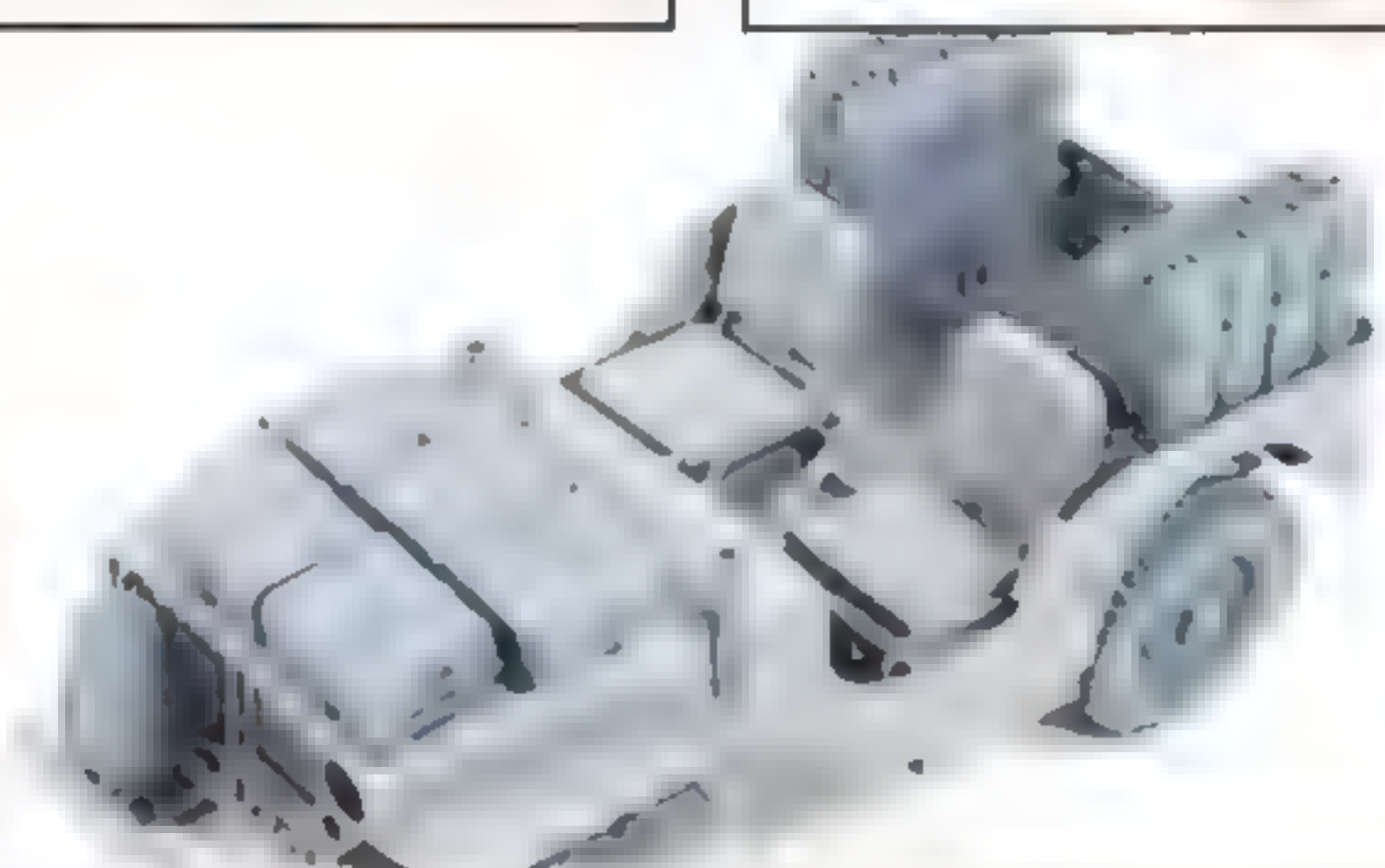
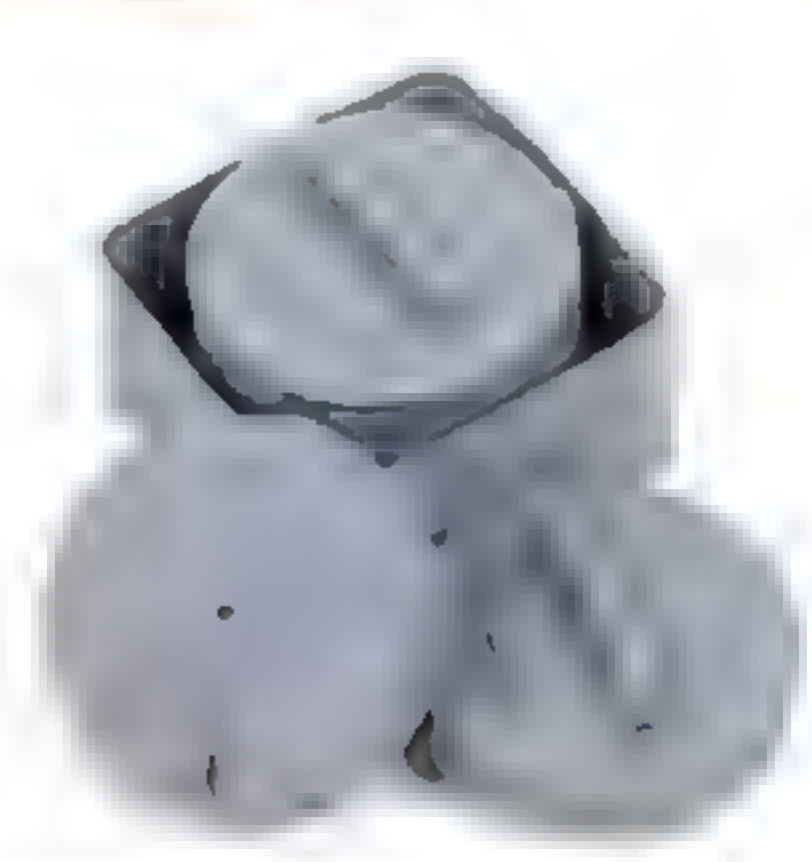
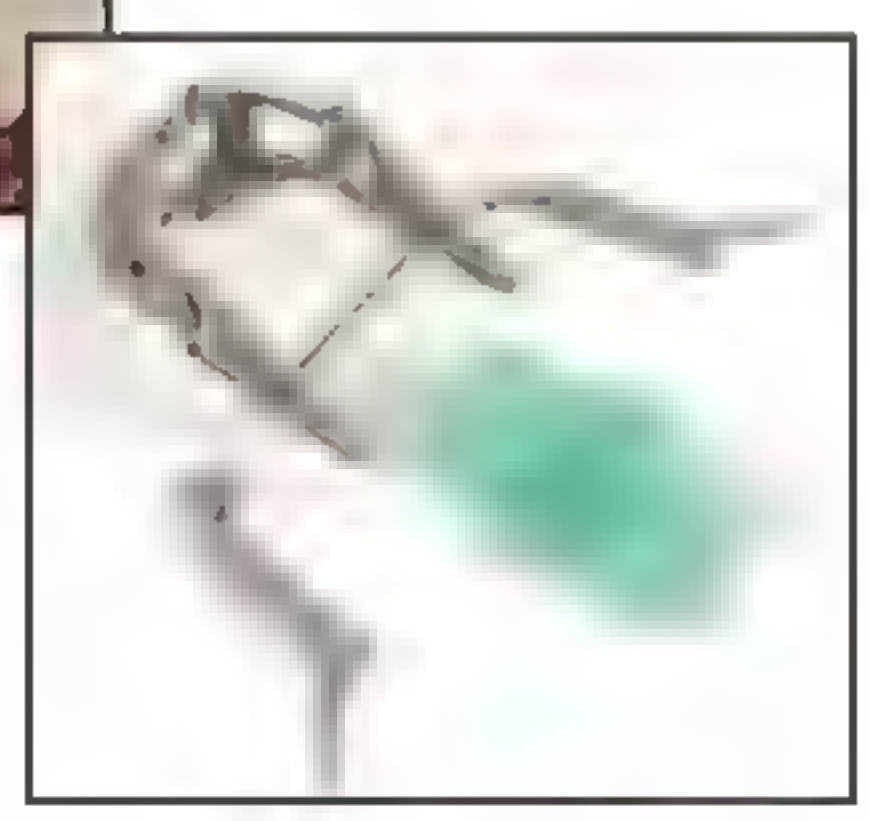
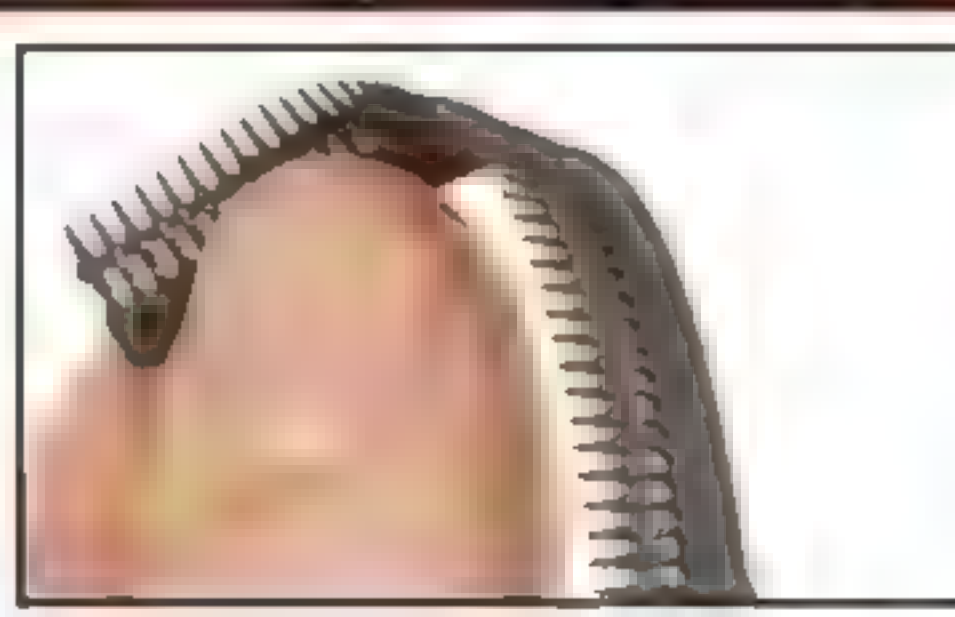
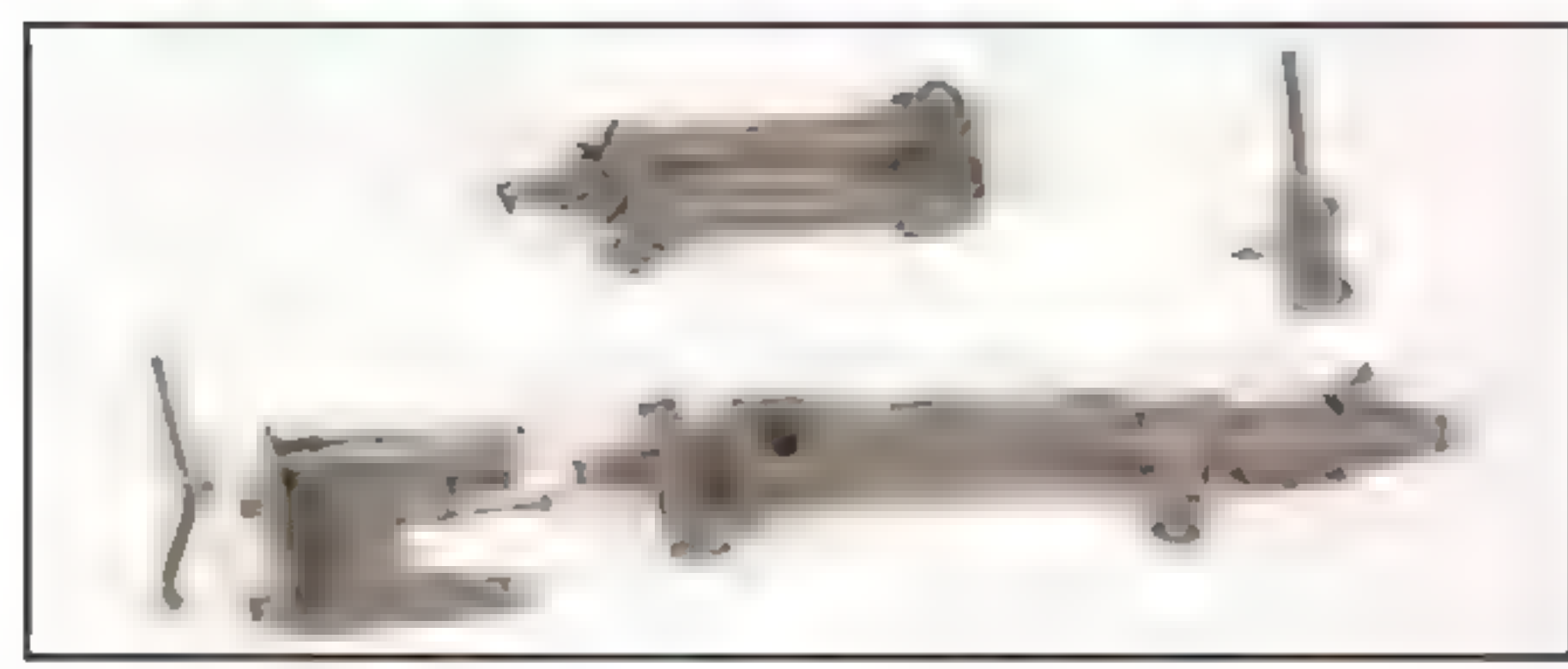


1:16 StuG III CREW

RESIN FIGURES
OVER A DOZEN SETS AND
SINGLE FIGURES TO
CHOOSE FROM

TRUMPETER KING TIGER

...OVER 25 SETS AVAILABLE!



TAKOM
1/4 ton TRUCK
DETAIL SETS AND
SAS / LRDG
CONVERSIONS & FIGURES

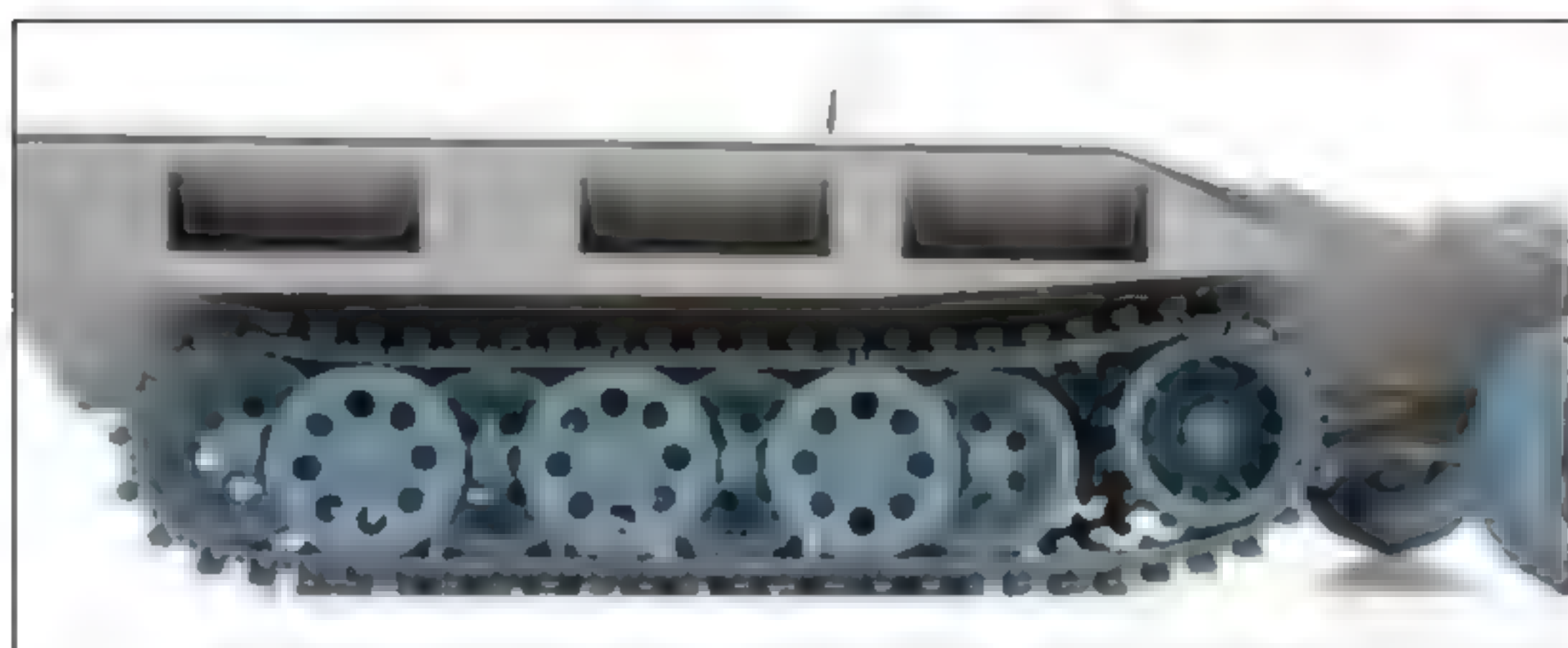
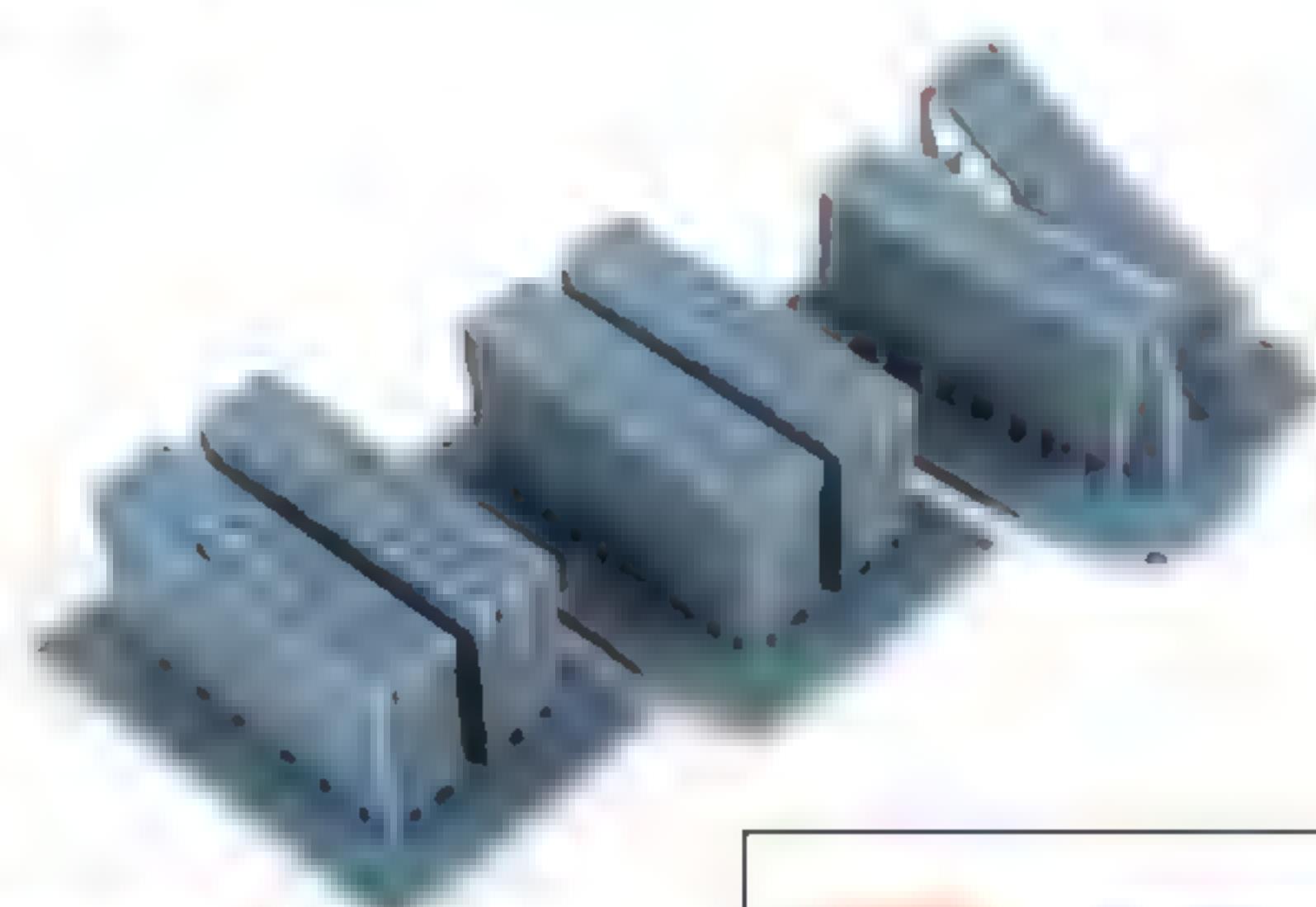
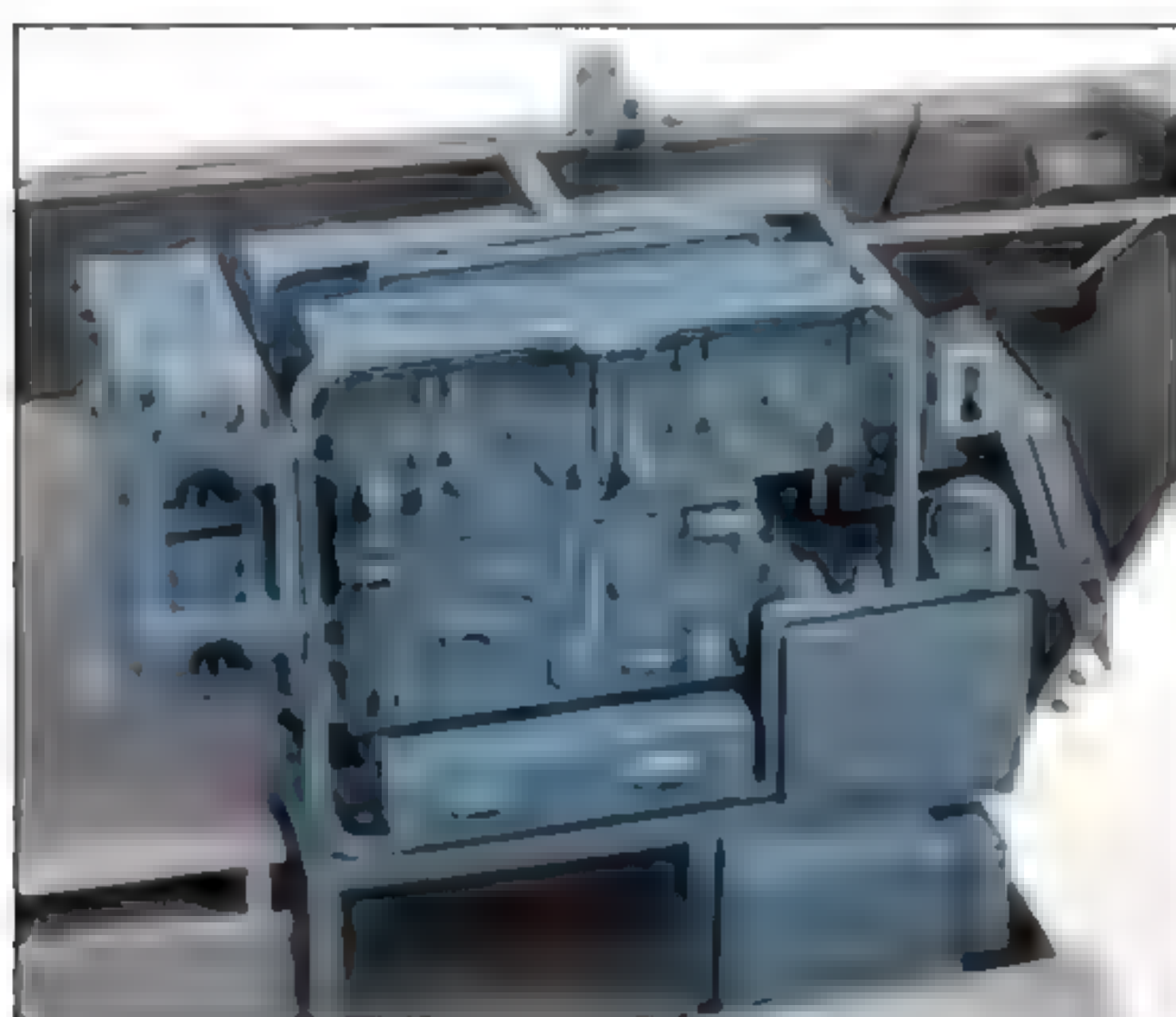
SHOP 24/7 AT OUR SECURE WEBSITE www.afvmodeller.com

WORLDWIDE SHIPPING WITH CHOICE OF DELIVERY SERVICES



DAS WERK AND HELLER STUG III

...OVER 50 SETS AVAILABLE!

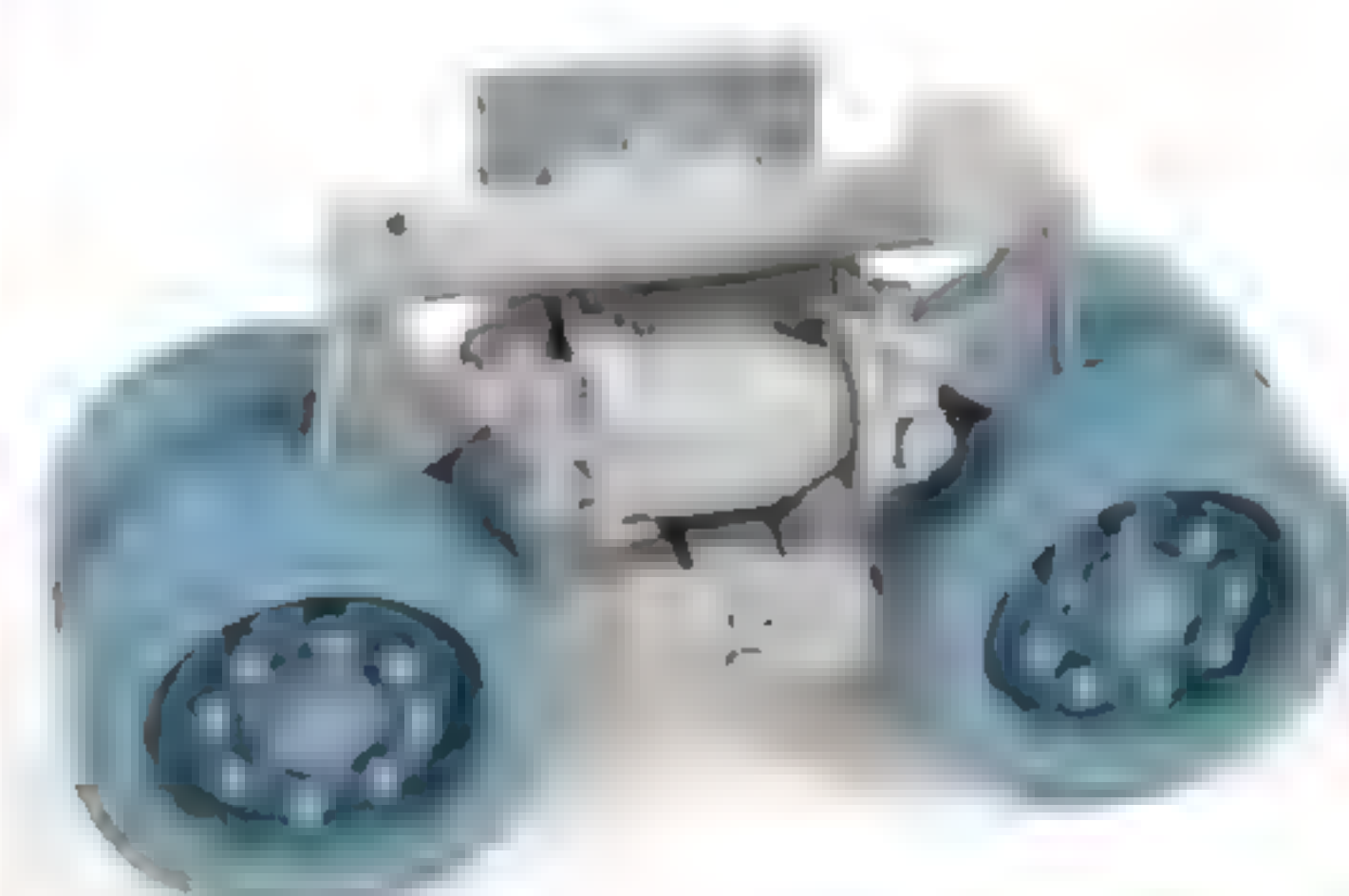
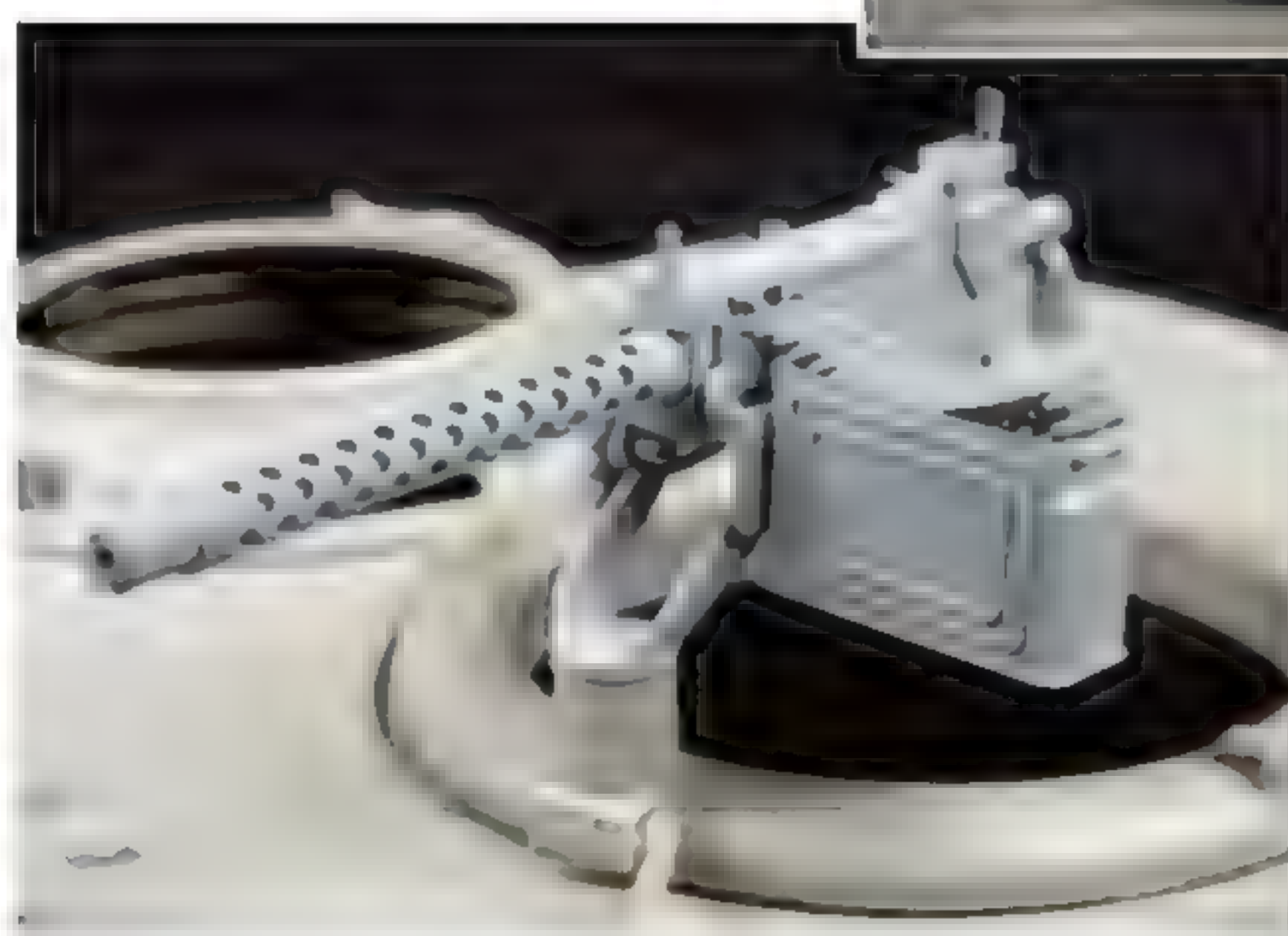
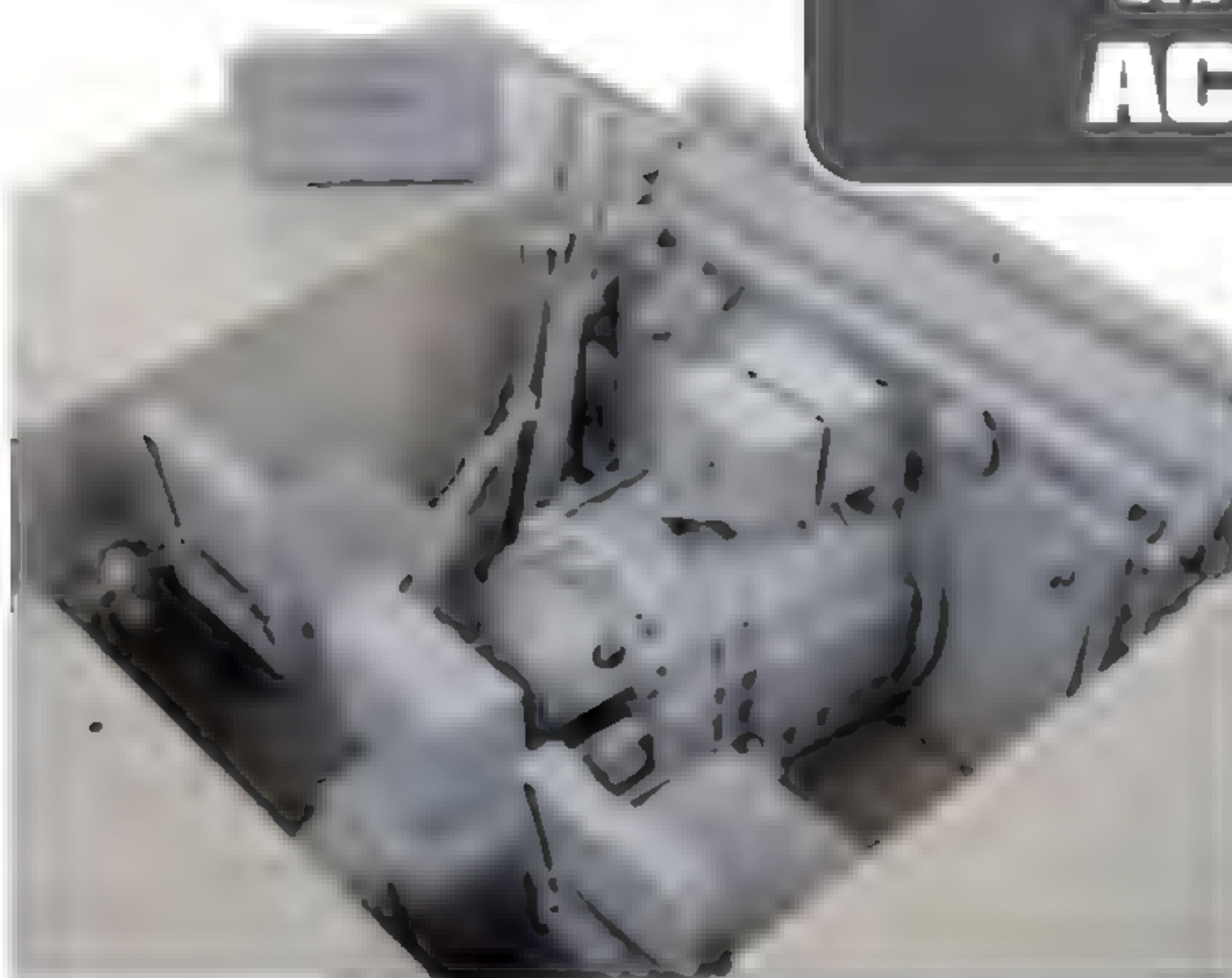


**DAS WERK &
TRUMPETER
SdKfz 251**

...OVER 25 SETS AVAILABLE!



**AHHQ SHERMAN,
M10 and
ACHILLES**



WE'RE YOUR ONE-SIXTEENTH SUPERSTORE!

CHECK DAILY FOR STOCK UPDATES AND NEW RELEASES www.afvmodeller.com



Alan Ranger Archive

In this series we gain exclusive access to the unpublished images in the collection of long-time Military historian and collector Alan Ranger. Most of the images are from private sources taken by the service personnel in the field or in training, hence the varying quality and lack of date and location recorded but offer a unique insight into lesser covered subject material.

Staff Cars In German Service

The mighty Blitzkrieg of the German forces in the early stages of WWII conjures-up images of waves of speeding Panzers as portrayed by Nazi propaganda, this of course was not the case entirely. Much of the German movement of the time still relied on horse-power (literally) and many civilian and captured vehicles were pressed into military service. Officers' transport in the form of staff cars is a good example with names from German industry still familiar to this day with DKW, Horch and Wanderer merging with Audi (hence the four interlocking rings of the AUDI logo) and others like Adler surviving only until the late 1950s. This selection of period images show some of the lesser-known models in service.



KdF (Kraft durch Freude) era 'Beetle' with what appear to be post-war British markings perhaps. Note the driver's side windscreen wiper isn't parked as it should be.



Built in large numbers between 1935 and 1942 the French Peugeot 302 and 402 was the basis for many body styles including pick-up trucks. Many were supplied to the French military and captured by the occupiers.



Don't try this at home! A rather precarious jack assists with a roadside repair. Note the rear fender-skirts.



Peugeot 402 seen in Zagreb Northern Yugoslavia on the 12th of



A recently commandeered Peugeot 202 in a small town somewhere in central France pictured on the 4th of September 1942.



A Peugeot 202 of Panzer Von Kleist photographed on day two of Operation 25 the invasion of Yugoslavia that started on the 6th of April 1941.



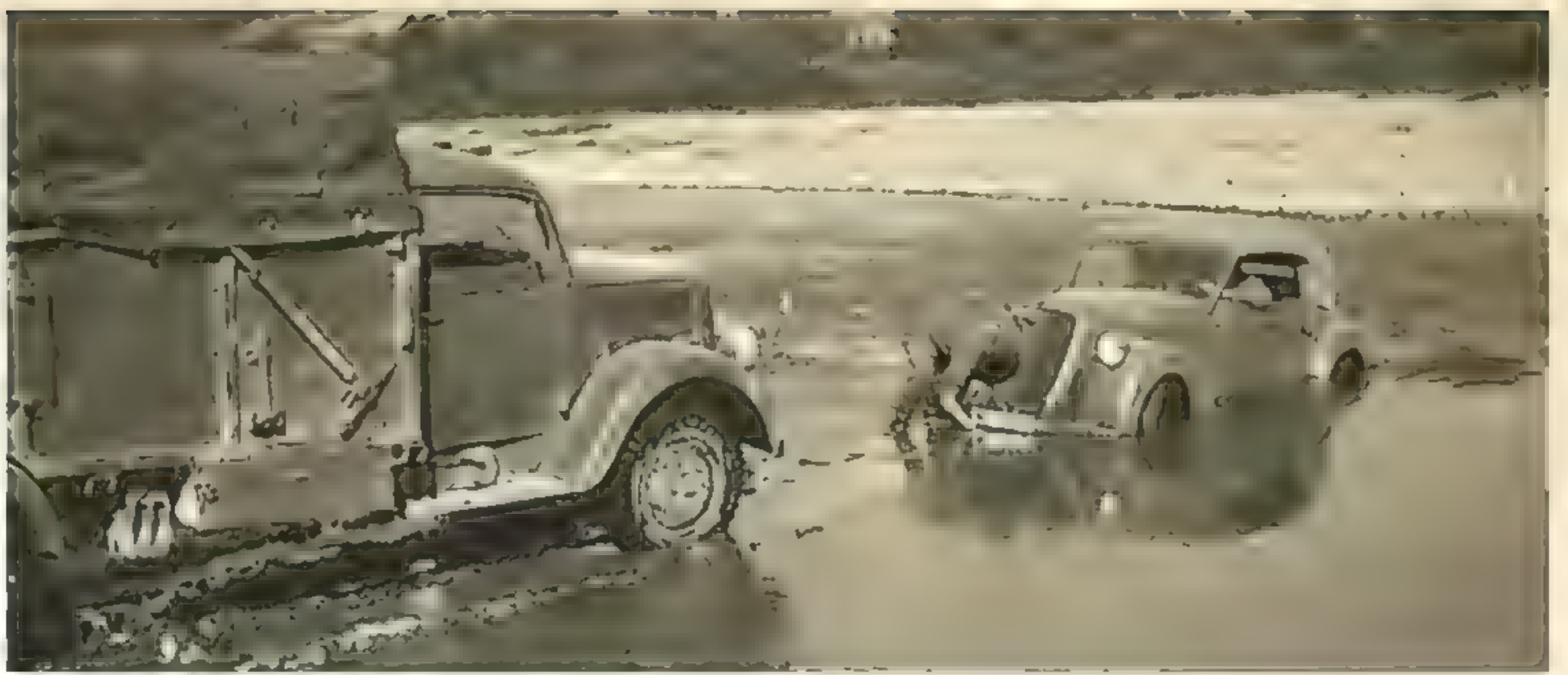
The 402 Berline (above) was the largest body style, note the opening split-screen front windows and what appears to be the original French colours and markings.



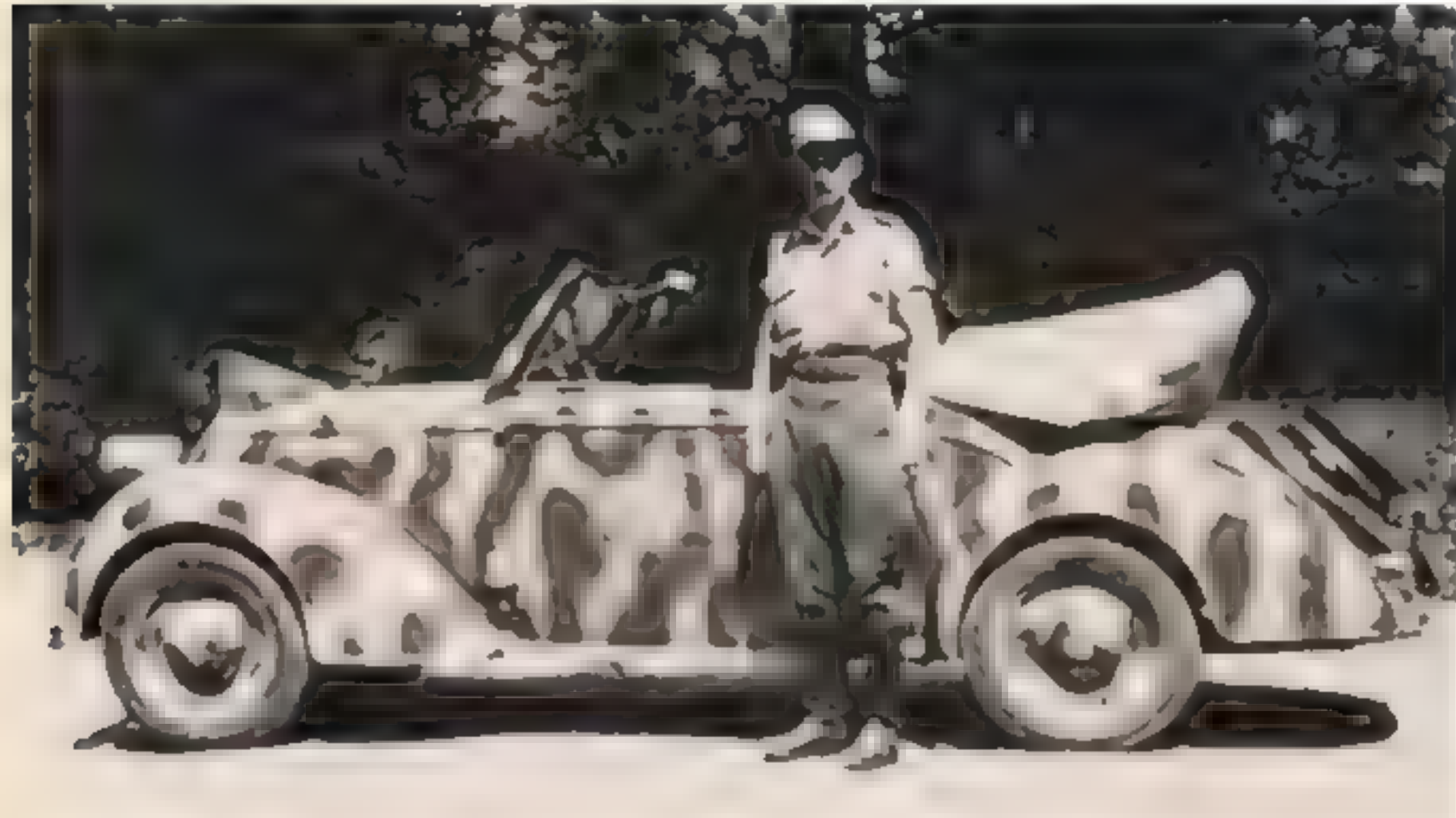
A Peugeot 402 pictured on the 2nd of July but sadly both the Location and year are unknown



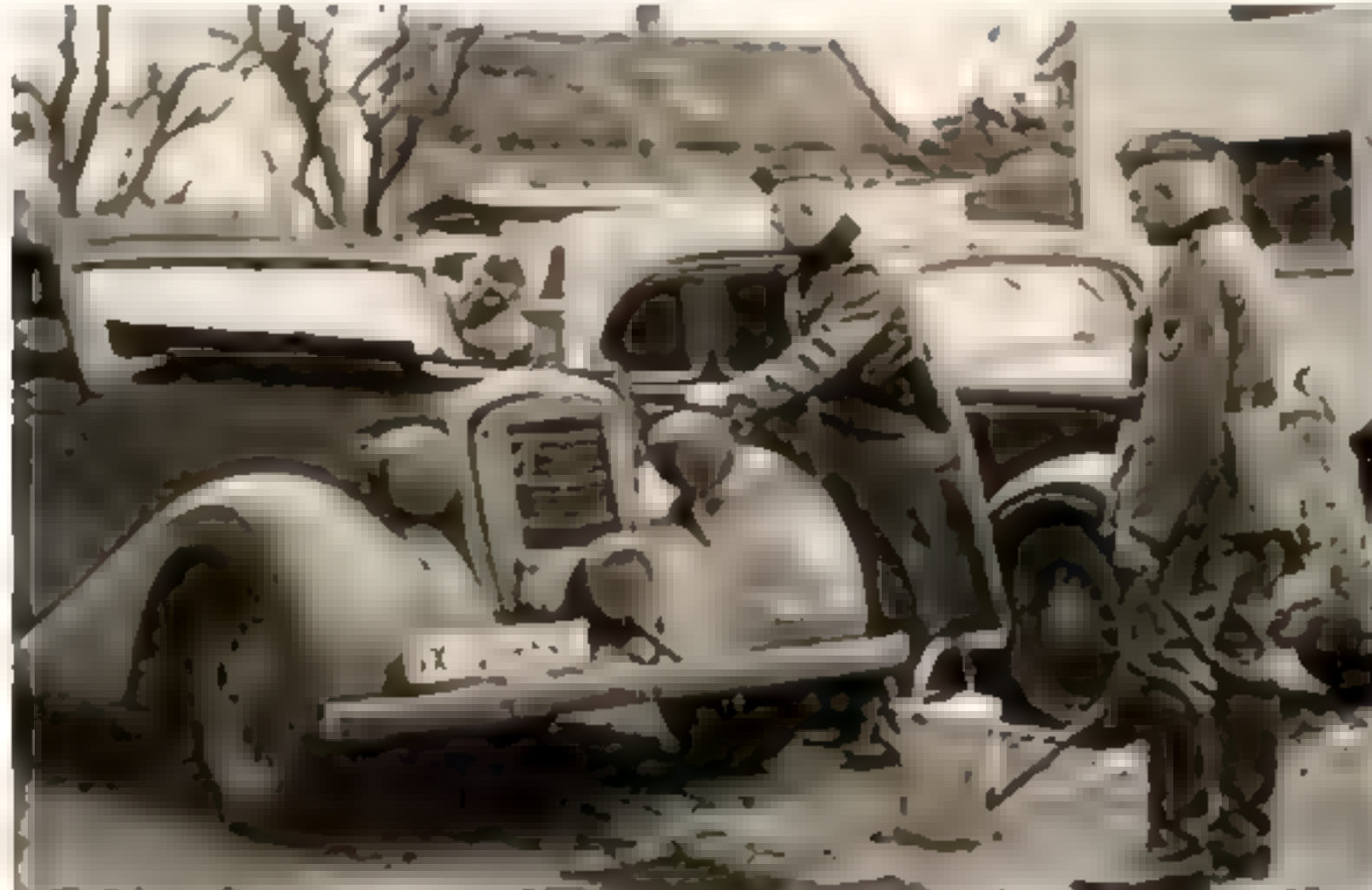
This Peugeot looks to be repainted in Dunkelgrau and is fitted with a Notek lamp.



A German made Styer 200 is pulled from difficulty by an Opel Blitz



More Styers, striking 'tropical' type camouflage on the 200 (left) and a Styer 220 in colder



Styer 250 seen in Belgium in late May 1940 on the coast road in-between Ostend



The quirky-looking Styer 50 (left) and 55, note the rear opening 'suicide' doors.



Seen here during the Anschluss the Annexation of Austria which was concluded in March of 1938. This Photo was taken a year later on the first anniversary on the 13th of March 1939 in the town of Linz.



Styer 250 'Kubelwagen' (bucket car) was powered by a four cylinder boxer engine with 25 HP and an intermediate gear to help with off-road driving.



Styer 200 Pictured in Dunkirk on July 10th 1940 Only 6 days after the end of the hostilities in the town.



Styer 220 being towed by horses through early Autumn mud found in Eastern Ukraine somewhere near Kharkiv. October 24th 1941



Stower M12 (Kfz 15) seen in Duisburg in 1938

Stower M12. This time in France in July 1940 somewhere south of the town of Flers, Normandy.

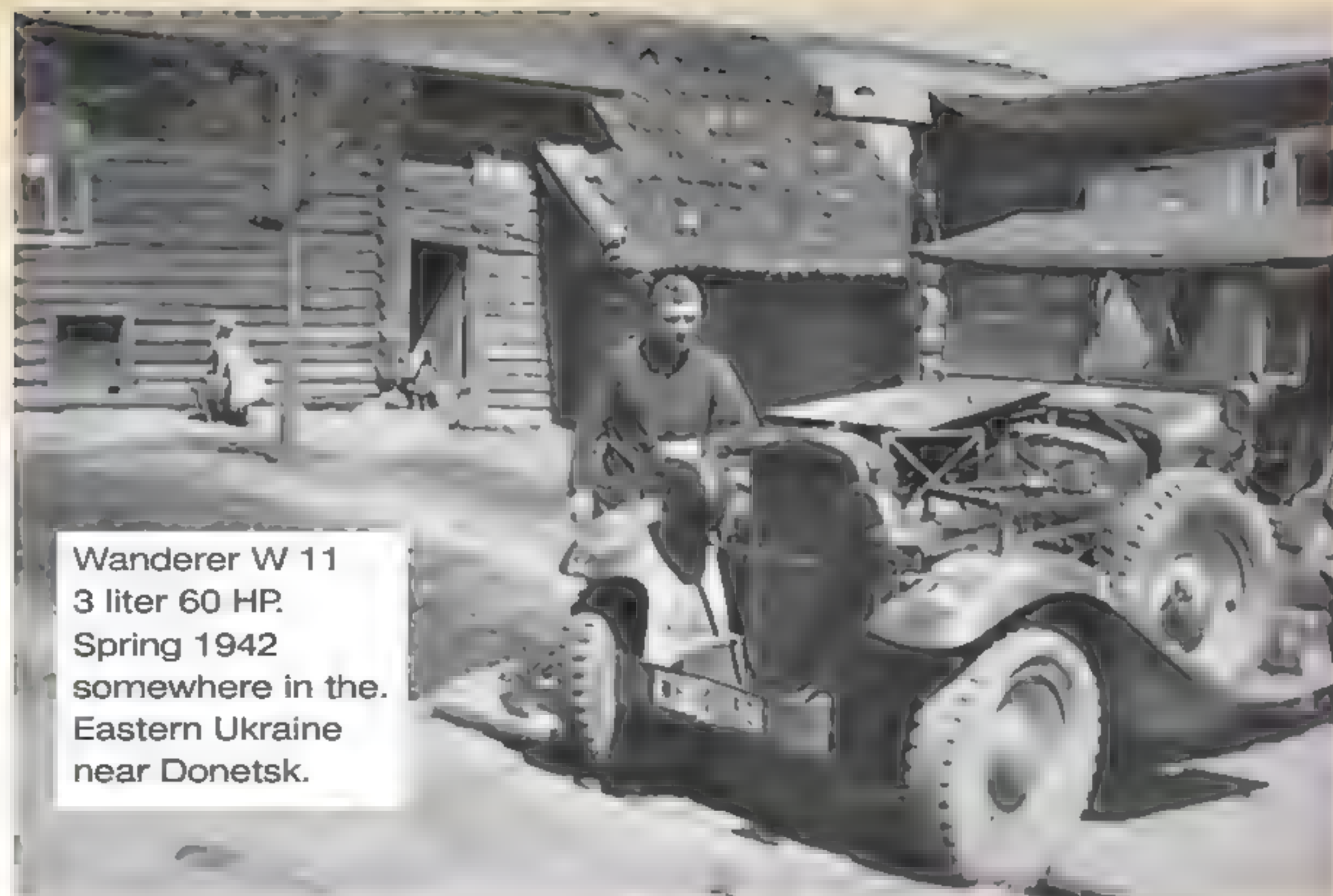


Stower M12 Photographed on June 16th 1940 in Belgium less than a week in to the invasion of the low countries.





Stoeber M 12 3 liter 60 HP. Seen at a temporary fuel site in Northern Greece summer 1941. Fuel stations were a rarity in Greece at this time. Note the 2 200 liter drums and the spill safety bund dug around them.



Wanderer W 11
3 liter 60 HP.
Spring 1942
somewhere in the
Eastern Ukraine
near Donetsk.



Wanderer W 11
3 liter 60 HP seen in
Yugoslavia,
summer 1941.



Here we have two images of the same rather sad looking Wanderer 1935 2 door sedan seen in France on September the 17th 1943 east of Rouen, France after it ran over a road side mine set by the Resistance.



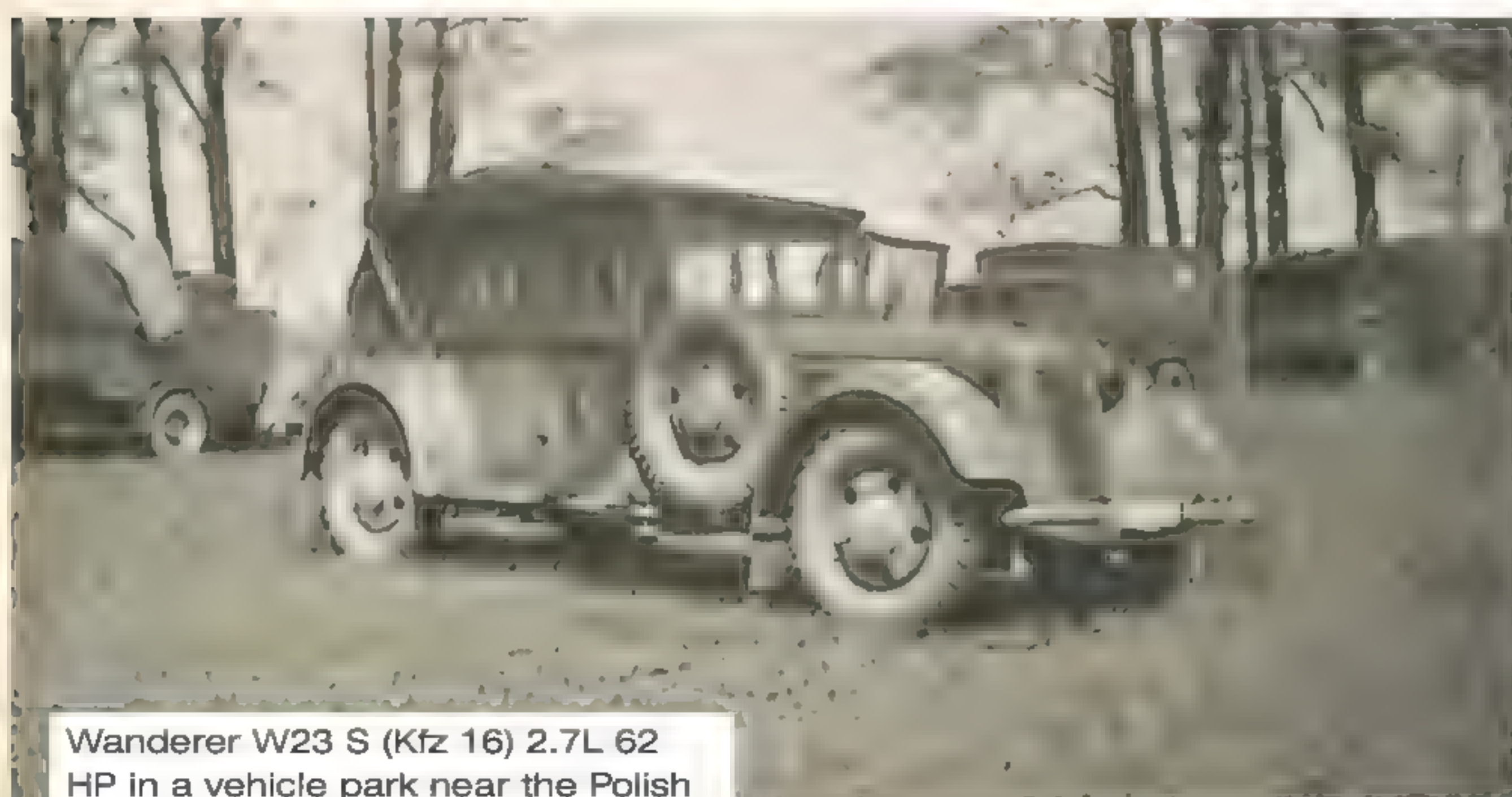
Wanderer W23 Saloon
in Belgium in the
summer of 1942.



Wanderer W 11 Meppen area
Germany winter 1939



Wanderer W23 Saloon
in Northern France
summer 1940.



Wanderer W23 S (Kfz 16) 2.7L 62
HP in a vehicle park near the Polish
border just days before the invasion
in September of 1939.



Wanderer W23 saloon of
the final production type,
central Russia.



Wanderer W23 saloon seen near Smolensk, Russia on the 24th of November 1941.



Wanderer W23 saloon, pictured in Holland in 1944. Painted in base Dark Yellow with a Dark Green & Red Brown pattern.

Wanderer W23 Convertible, seen in Central Ukraine somewhere in the Dnipro area photographed on the 13th of September 1942.



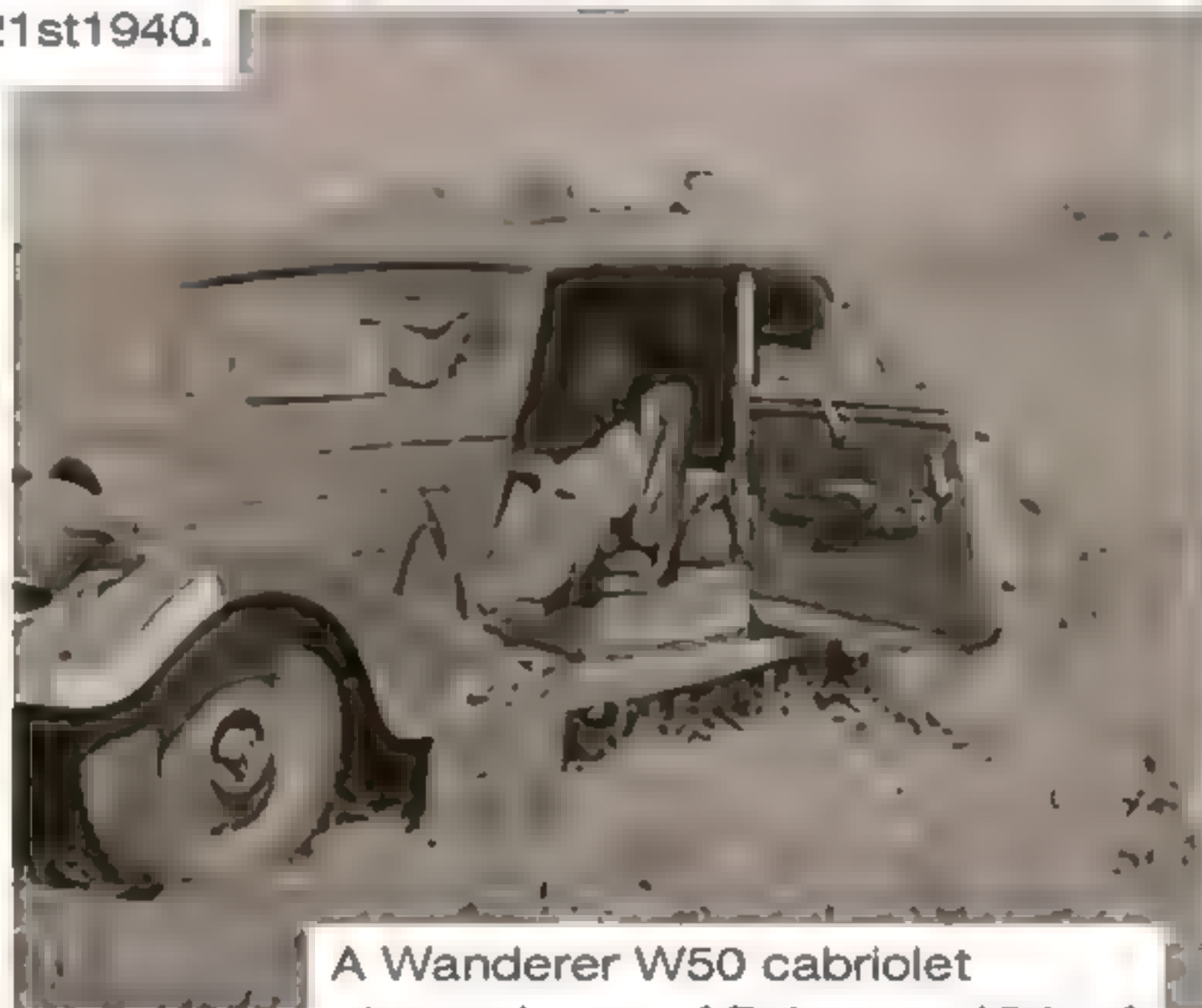
Wanderer W23 Convertible seen at a Heinkel 111P recovery operation taking place just outside Hondschoote just inside France on the border with Belgium. Seen on the morning of August 21st 1940.



Wanderer W23 Convertible photographed near Warsaw 1940.



Wanderer W50 2.3 liter 50HP Convertible seen behind the parade ground of a barracks in the Hanover area the officers it was transporting have already disembarked to lead a inspection.



A Wanderer W50 cabriolet pictured east of Rzhev on 18th of October 1941 only 4 days after the town was taken.



A Wanderer W50 cabriolet seen in Sedan, France 16th June 1940 with the driver eating lunch from his mess tin outside a cafe/tobacco shop.



A Wanderer W50 cabriolet seen on the great Russian Steppe during the late summer of 1942.



A Wanderer W50 cabriolet pictured in highly posed photo with an Austrian Soldier presenting a German officer with flowers during March of 1938.



A Horch 830 R belonging to a Luftwaffe field unit, the troops dressed in thier fatigues are parked next to a Air Field Control caravan on a temporary forward airstrip in Northern

A Horch 8 Typ 500B cabriolet that belongs to the German Navy and is based at Bremerhaven, Germany. This photo was taken 2nd of November 1939. No doubt a photo these drivers are going to send home to show thier families the toy they get to play with when the officer is assigned elsewhere.



A Horch 830 cabriolet complete with a Horch factory supplied option of a lightweight luggage trailer. The pair are seen on the side of the Scheldt Canal in Belgium just south of Oudenaarde, Summer 1940.



This Horch 830 R is seen on the road between Hanover and Bremen on the 12th of September 1938.



Photographed in Saint Quentin, a Horch 830 R and a pair of BMW R12 motorcycles. This photo was taken on May 22nd 1940. These are all part of a reconnaissance unit within Rommel's Panzer group.



A Horch 830 R parked outside this Art-Deco style block of flats located in Calais, France. This photo was taken in the high summer of 1942. Of note is that this block of flats is still standing and the only major change is that the ground floor is now a row of shops.



This Horch 830 R pictured during April 1941 outside a brand new classic 1930's design of office building on the outskirts of Karlsruhe, note the factory supplied quilted cold weather radiator cover.



An early Horch 830 R parked outside a railway marshalling yard close to Frankfurt with two officers setting up for a pay parade that will take place shortly. This photo is dated 29th July 1939.



A Horch 830 R belonging to a signals unit part of the 112th Infantry division. Note the frame-work on the front fenders that would normally have cable reels mounted on them, the photo was taken on the 17th of August 1940.

This Horch 830 R was photographed whilst at the halt called for during the Dunkirk evacuation. Note the crew are catching up on some much needed sleep, lastly note the infantry small arms ammunition trailer being towed by the Sd.Afh 33.



Photographed in the outskirts of Calais, France this damaged Horch 830 R is seen being recovered by a recently captured ex-BEF Bedford light weight recovery truck fitted with a crane mounted in the rear load bed.



An Adler Autobahn seen outside a French local garage that has been commandeered for use by the Germans. Photographed on the 2nd of September 1940 in Reims.



Another Adler Autobahn this time photographed in the French port town of Honfleur July 1940. the camera man is standing on the dock edge looking in towards one of the many restaurants that line the dock and indeed still do to this day.



This Adler Autobahn was pictured in Norway during November 1942. Sadly I have no more information other than that on this photograph.



Here we have an Adler Diplomat parked outside of a Standard Commandant's Office. Note the command pennant on the front wing/fender this photo was taken on September the 15th 1941 in the Ostrava area of former Czechoslovakia



Pictured here is an Adler Eclectic pictured with its proud driver. the photo was taken on April 27th 1939 somewhere in the large Munster military complex



Seen here still in its civilian original paint scheme of two tone cream and light blue this recently commended Adler Mini (1936) was pictured in Duisburg outside the Demag Factory in March of 1940.



This photo was taken in the ruins of Dunkirk during a site seeing trip being taken by there Luftwaffe officers in late July 1940 the car is an Adler Trumpf.



Photographed on the 11th of May 1938 outside it's garage building in a barracks complex located in Leipzig, Germany we find this Adler Standard 6 Type 12N.

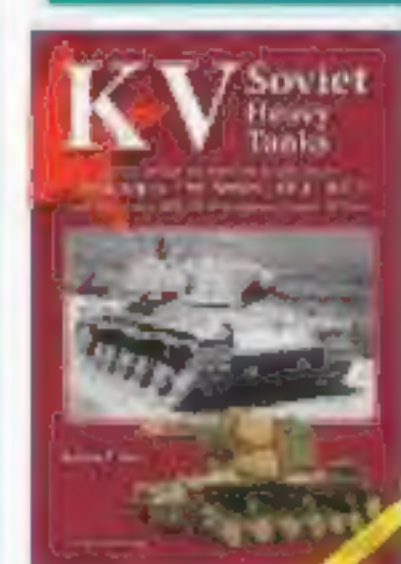
Here we see an Adler Type 3 GD with a large number 10 in white painted on the bonnet denoting that this car took part in one of the many off road driving competitions that took place in germany pre-war the photo was taken on the 4th of April 1938 sadly I do not know the location.





BOOKWORLD

wholesale



PRE-ORDER KV Soviet Heavy Tanks.

In 728 pages, supported by 1,030 wartime photographs, 204 other black&white photographs, 345 2-D and 3-D graphics, as well as 18 1/35-scale 5-perspective line drawings plus 32 colour plates and graphics and 45 colour photographs

£150.00



NVG 330. British Lend-Lease

Warships 1940-45
An illustrated history of the American-built destroyers and frigates supplied to the Royal Navy under Lend-Lease, which played a crucial role in Britain's war in the Atlantic.

£12.99



MVA 7. Post-War British Tanks

Authoritatively written and comprehensively illustrated series exploring a range of military vehicles

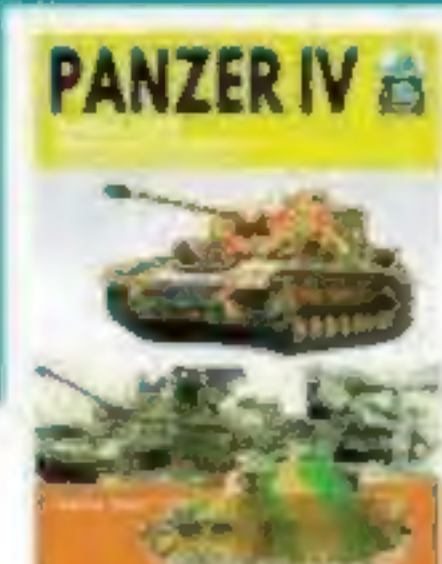
£9.99



DEP 37. Tanks and AFV's in the Iron Swords War

Through the camera lens of a Army Company Commander this book looks at the Merkava 4 and 4M in action during the war in Gaza.

£33.90



Tankcraft 43 Panzer IV Medium Tank

In Dennis Oliver's latest volume in the TankCraft series he uses archive photos and extensively researched colour illustrations to examine the later models of the PzKpfw IV tank

£18.99



Defending Normandy Vol.1A

Defending Normandy offers the reader unprecedented detail on the formations discussed. Every unit's organisation, equipment, pre-invasion history, and tactical role.

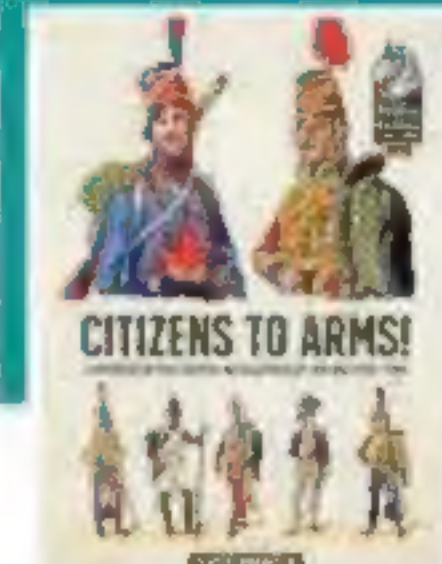
£39.99



British Tanks of the Red Army

presents a history of British tanks in the Soviet Union and provides a detailed account of their use on the battlefield, including what the Red Army tankers thought of them.

£14.99



Citizens to Arms! Uniforms of the French Revolutionary Armies 1792-1799

Citizens to Arms! presents this series with comprehensive comments for each plate as well as a discussion on the artist, the sources he used and the citizens, men and women, who answered the call to arms.

£29.95



Armoured Thunder

The Sherbrooke Fusilier Regiment was a Canadian armoured regiment attached to the 2nd Canadian Armoured Brigade which landed on the beaches of Normandy on D-Day in support of the 3rd Canadian Infantry Division

£25.00



IOW Rommel's Ghost Division Victory in the West

June 1940. In just weeks, General Erwin Rommel's 7th Panzer Division - dubbed the 'Ghost Division' - had driven headlong through Allied forces in Belgium and France to reach the English Channel.

£16.99



Images of War Rommel's Ghost Division Dash to the Channel 1940

His so-called 'Ghost Division' reached the Channel coast on 10 June, a jubilant Rommel signalling: 'Am at sea.'

£16.99



Panzer Soldier in Africa and Italy 1942-45

The photos, along with surviving diary entries or letters, will be set against the overall framework of events.

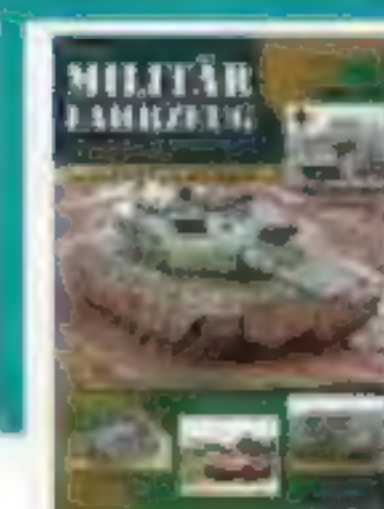
£62.99



Heer im Focus 2

Heer im Focus is a German published magazine, edited by a team of famed military experts. You will find unpublished photos from private collections with detailed information and articles.

£28.99



Militar Fahrzeug Number 88

fully illustrated Text - Language: German text only Number of Pages: 72+4

£13.99



New Vanguard 329. Tanks on Iwo Jima 1945

An award-winning US Marine Corps armor historian's account of the role of US and Japanese tanks on Iwo Jima.

£12.99



Duel 136. Panzer III versus T-34

This illustrated study pits Germany's PzKpfw III against the Soviet Union's T-34 in the wake of Hitler's 1941 invasion of the Soviet Union.

£15.99



Panzer Tracts 3-3 Panzerkampfwagen III

more pages and photographs. It is a must-have reference for accurate information and scale drawings on the Panzerkampfwagen III Ausf.J, L, M, and N.

£23.99



Hitler's Last Levy. The Volkssturm 1944-45

This new edition includes over 150 previously unpublished b/w photos, and 4 pages of specially commissioned color uniform plates by Stephen Andrew.

£29.95



The Oder Front 1945. Volume 2

Describes the planning and execution of the defense of the Oder Front, reconstructing it day-by-day using previously unpublished personal diaries, postwar interviews, Heeresgruppe Weichsel's war diary and daily command phone logs.

£55.00



Camouflaged Fist

insight into the wider use of uniform by infantrymen in Italy and previously unpublished material concerning the 6th Armoured Division. It will be of interest and assistance to historians, military collectors, reenactors and scale modellers alike.

£29.95



Ukrainian Armour and Fighting Vehicles

This book aims to cover the various designs of tanks and armoured fighting vehicles currently in use in Ukraine.

£16.99



Red 095. Scammell Pioneer Trucks and Tractors in Detail

TRMU 30, SV/25 Trucks and TRCU30 Trailer 143 Pages Full Colour Walkaround Detail

£35.99



The Second World War Tank Crisis. The Fall and Rise of British Tanks 1919-45

looks at the flaws in British financial policy, tank doctrine, design, production and development before and throughout the war years

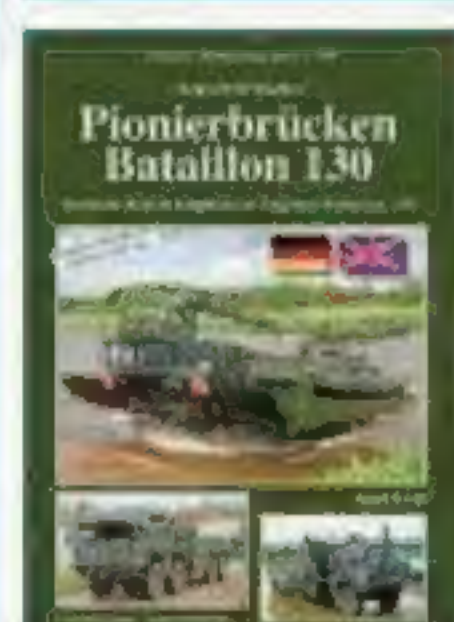
£14.99



Dioramag 16. Men and Whales

Dioramag: an entire magazine focused on dioramas and scenes. You will find the best articles of the best modellers and writers in the world. Step by step articles, painting techniques, building techniques, showcases, news, reviews and much more.

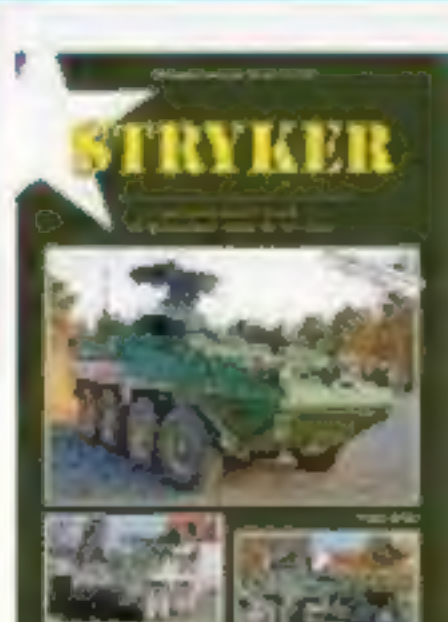
£17.00



Tankograd 5098. German-British Amphibious Engineer Battalion 130

This publication tells the story of the German-British unit in great detail and supported by impressive exercise photos of all its vehicles.

£17.99



Tankograd 3050 Stryker

For the first time this publication grants an overview over all Stryker variants, from its ICV basic model up to the most recent additions to the family.

£17.99



Tankograd 9040. Iron Hammer 88

This publication shows the military vehicles of the participating units in dramatic exercise photographs partially in severe winter weather conditions.

£17.99



Solution Book 23 How to Paint WWII German Late War Vehicles

This book contains explanatory texts in four languages (English, Spanish, French, and German). The model used as an example in this Solution Book is the Panther Ausf.G Late Production, 1/35 scale, TAKO2121 by TAKOM. Paperback

£9.99



Solution Book 01 How to Paint WWII German Tanks

Paperback 67 Pages Full Colour

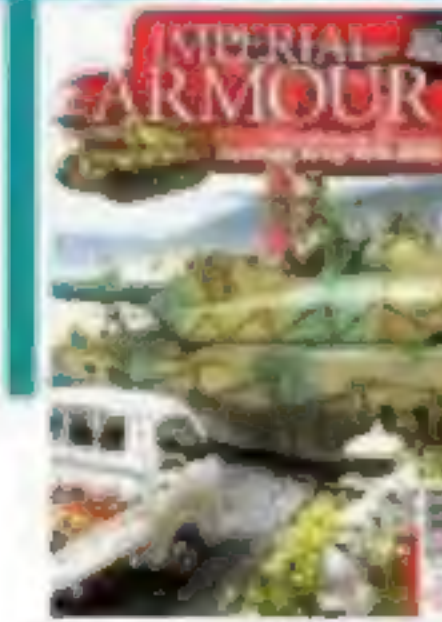
£9.99



Gravity Sci-Fi Modelling's Perfect Guide 1980's Villains

step-by-step format a number of highly comprehensive assembly, painting and weathering examples of your favourite ships and vehicles, with a multitude of photos and precise descriptions of the processes to achieve a perfect finish.

£23.99



Imperial Armour. Modelling AFV's of the Japanese Army 1939-2020

presents a series of step-by-step guides and reference articles on Japanese AFVs from 1939 to the present day.

£20.00



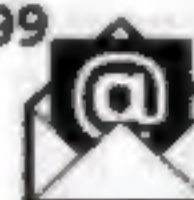
How to Paint Scale Cars Vehicles Included

Maserati 250F McLaren MP4/7 Shelby Cobra 427 Caravan Ferrari 250GTO Auto Union Type D1938 Mercedes Benz 300SL

£32.99



www.bookworldws.co.uk



info@bookworldws.co.uk



01299 823330

Unit 10 Hodfar Road, Sandy Lane Industrial Estate, Stourport-On-Severn, DY13 9QB

UK Delivery £3.50 RM or £6.25 Next day

Overseas orders contact us or visit the website

We are pleased to introduce you the new Model Color, the range that sets the standard for all figure and model kits painting enthusiasts

The range consists of **220 references**, including 192 very opaque colors, 10 metallics, 2 transparent, and 16 auxiliary products, presented in the new 18 ml r-PET (recycled/recyclable) bottle, completely transparent and more sustainable. NO, it's not the same, it's better!

We have introduced a new formulation that will surprise you with its amazing brushability, excellent opacity and superb matt finish. You will notice that the colors dry quickly, forming a homogeneous and self-leveling layer that respects the smallest detail present in your model.

The range has been designed according to the Vallejo **BSL** (Base, Shade, Light) painting system, allowing you to easily locate the appropriate tones for highlighting and shading a specific base color.

Scan for more information:



Follow us at @VallejoColors



acrylicosvallejo.com

MODEL COLOR



Vallejo V

Best brass around

eduard

M3A2 HALF TRACK

Tamiya 1/35



#36516



Eduard monthly magazine with historical articles and modeling topics. More than 100 pages! Free download at info.eduard.com



JAGDPANZER 38(t) HETZER

Takom 1/35

#36517

